

Cognitive Impairment Care Guide

July 2024



Information contained in the Care Guide is not a substitute for a health care professional's clinical judgment. Evaluation and treatment should be tailored to the individual patient and the clinical circumstances. Furthermore, using this information will not guarantee a specific outcome for each patient. Refer to "Disclaimer Regarding Care Guides" for further clarification.

<https://cchcs.ca.gov/clinical-resources/>

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GOALS

- ✓ Early identification and evaluation of affected patients
- ✓ Ensure connection with appropriate resources and housing
- ✓ Compassionate Release or Expanded Medical Parole if indicated
- ✓ Consider need for adaptive support
- ✓ Prevention of victimization and optimize quality of life
- ✓ Advance care planning with durable power of attorney
- ✓ Consider need for [Palliative Care Consultation](#)

ALERTS**Signs of Cognitive Decline:**

- Forgetfulness or confusion
- Worsening personal hygiene
- Prone to victimization
- Need for DDP evaluation for adaptive supports
- Need for alternate housing and functional assessments
- Increase in behaviors resulting in rules violations
- Increased anxiety and agitation

SCREENING

CCHCS uses the Mini-Cog to screen for cognitive impairment. The test involves 2 parts and scores 0-5. A total score of 0, 1, or 2 indicates higher likelihood of clinically important cognitive impairment. A total score of 3, 4, or 5 indicates lower likelihood of dementia but does not rule out some degree of cognitive impairment.

- Diagnosis of brain disorders that cause cognitive impairment requires more in-depth cognitive and medical examinations.
- Consider the following labs: CBC, CMP, TSH, liver and kidney function, and vitamins B12. If high clinical suspicion, consider adding RPR, syphilis serological test and HIV.
- Be mindful of issues that may confound cognitive assessment such as hearing or vision loss, infection, sleep apnea, medication side effects, metabolic derangements, delirium, or depression to determine the most appropriate interventions.

ASSESSMENT

Assessment should attempt to identify and determine the severity and nature of the cognitive impairment.

- Overviews of various neurodegenerative diseases can be found on page [12](#).
- The Montreal Cognitive Assessment (MoCA) is used to evaluate eight domains of cognitive functions:
 - Visuospatial/Executive
 - Delayed Recall
 - Memory
 - Attention
 - Language
 - Abstraction
 - Naming
 - Orientation
- Certification for using the MoCA is required and available to providers at no cost through the process described [here](#).
- MoCA Scores range from 0-30. A score of 26 or above is considered normal. A score of 25 or below may indicate cognitive impairment.
- Functional assessment is essential to determine impairment severity and determination of specialized housing and disposition planning.
- Provider should ensure the diagnosis of cognitive impairment or dementia are captured within the patient's problems list.
- DDP evaluation should be ordered to determine the need for adaptive supports to optimize functioning in activities of daily living. More information on the Developmental Disabilities Program can be found on [page 10](#).

TREATMENT

By identifying the earliest stages of dementia as they occur, and quickly intervening, the onset of later stages may be delayed. Though most cases of dementia are progressive, some may be reversible, and sometimes dementia-like conditions may be caused by treatable underlying deficiencies or illnesses.

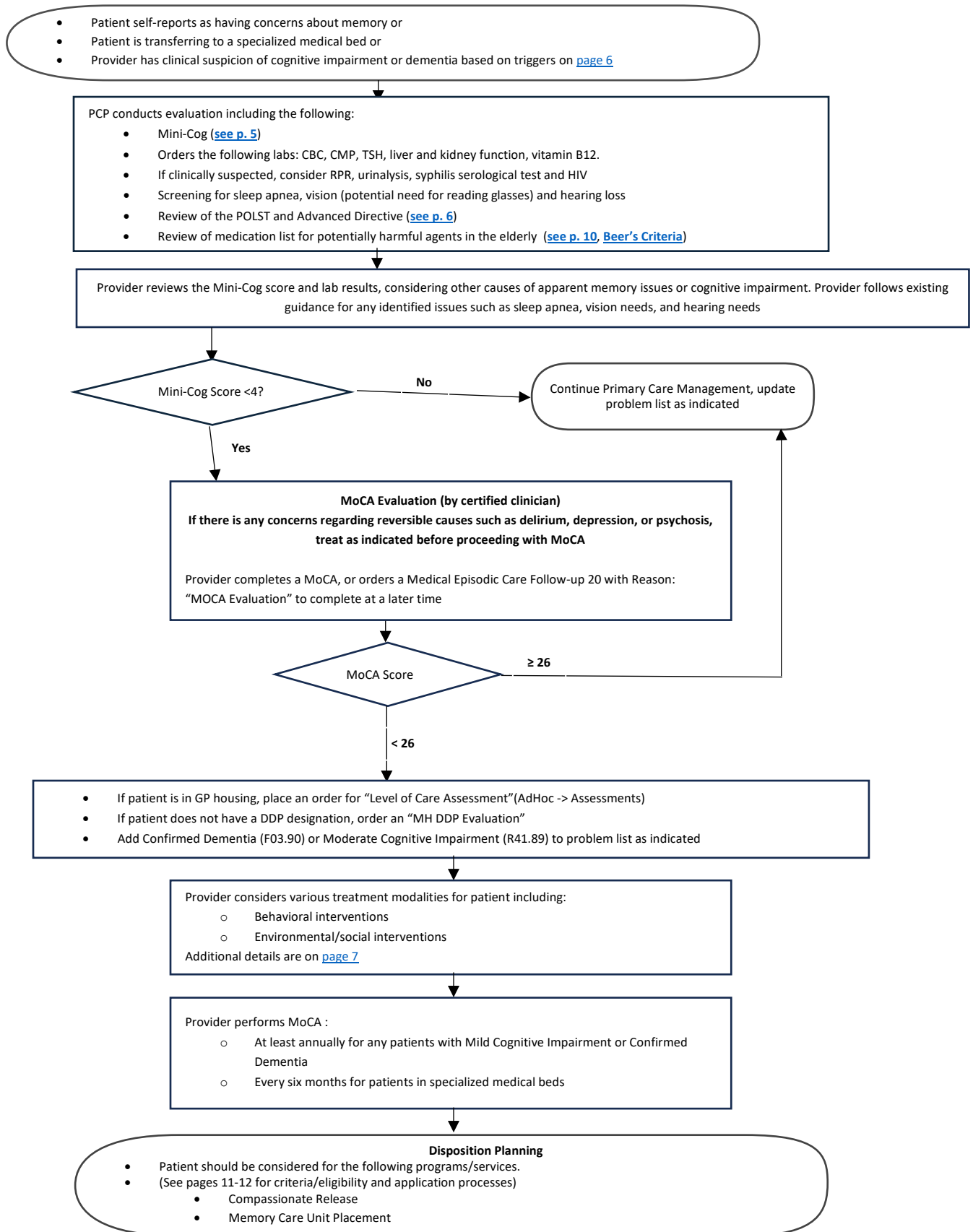
The three components of treatment planning:

- **Behavioral Interventions** include exercise, social interactions, positive sleep and hygiene habits, engagement in simple tasks, and cognitive stimulation therapies. Measures to prevent falls should be implemented.
- **Environmental/Social interventions** includes making appropriate living arrangements given functional assessment along with behavioral and safety concerns, proper support for activities of daily living (ADLs) and assigning a surrogate decision maker.
- Referral to designated housing units may be considered as applicable (details on pages 11-13)
 - ⇒ Note: Compassionate Release and Expanded Medical Parole applications may be processed concurrently if eligible for both
- **Medical interventions** may delay disease progression, but any possible marginal benefit should be weighed against adverse effects.
 - Treating any medical conditions that may be exacerbating cognitive decline.
 - Correcting hearing, visual, or mobility impairments, and depression that may be impairing cognitive function.
 - Providing assist devices such as canes or walkers to reduce the risk of falls.

MONITORING

- Follow up frequency will vary based on disease progression and treatment effectiveness, as well as caregiver and patient input.
- Medications should be minimized to essentials, reassessed 6-8 weeks after initiating, and at least every 3 months thereafter.
- Review medication list regularly and carefully consider the ongoing need for any medications that may impact cognition ([Beer's Criteria](#))
- Ongoing monitoring with cognitive assessment tools is required to assess progression of disease and cognitive impairment.

EVALUATION AND MANAGEMENT ALGORITHM – MILD COGNITIVE IMPAIRMENT (MCI)/DEMENTIA



DEFINITIONS

Mild cognitive impairment is characterized by a loss or impairment in at least one area of thinking, (e.g. attention, memory, processing speed, executive function, language) that are not normal for age or education level and, depending on the underlying causes, may carry a risk for developing dementia. However, there are causes for MCI (e.g. depression, nutritional deficiencies, diabetes, sleep disorders) that may improve with medical or mental health intervention and/or lifestyle modification.

Dementia is not a disease in its own right, and it is not a natural part of aging. Rather, the symptoms of dementia are caused by different diseases that affect the brain, including Alzheimer's disease. Dementia is a progressive condition caused by loss of nerve cells. Symptoms worsen with increasing nerve cell death and brain atrophy.

Symptoms include problems with:

- Day to day memory
- Concentrating
- Organizing and planning
- Language
- Changes in mood
- Visual perception

Each person will experience dementia differently and the symptoms depend on the areas of the brain that are affected. For example, if cells in the temporal lobe start to die, that person might have difficulty with language, whereas if cell death occurs in the occipital lobe, that person might have problems with vision. Currently, there is no cure and many diseases that cause dementia are terminal.

STAGES OF DEMENTIA

There are 7 stages of dementia. Levels 1-3 are considered "pre-dementia" in which a patient may experience no to mild cognitive deficits. They remain independent and can be placed in a general population setting.

Stages 4 and 5 are considered early to moderate dementia in which a patient is usually independent and may require assistance including supervision and prompting. These patients typically require some degree of supportive housing (eg: OHU/MCU).

Stages 6 and 7 are considered moderately severe and severe dementia in which a patient needs regular assistance with most or all activities. These patients are typically housed in a CTC setting.

STAGES OF DEMENTIA		FUNCTIONAL CHARACTERISTICS
Pre-Dementia	1 – No Cognitive Decline	<ul style="list-style-type: none"> • Normal
	2 – Age Associated Memory Impairment	<ul style="list-style-type: none"> • Occasional lapses in memory (no objective evidence on testing)
	3 – Mild Cognitive Impairment	Clear Cognitive problems manifest: <ul style="list-style-type: none"> • Getting lost easily in unfamiliar locations • Forgetting the names of new acquaintances • Difficulty retaining information read in a book or passage • Losing or misplacing important objects • Difficulty concentrating may be evident on testing • Co-workers may note changes or poor performance
	4 – Mild Dementia	Socially withdrawn, changes in personality/mood, denial is a common defense mechanism <ul style="list-style-type: none"> • Decreased knowledge of current and or/recent events • Difficulty remembering aspects of personal history • Decreased ability to handle finances, arrange, or plans • Disorientation • Difficulty recognizing faces and people No trouble recognizing familiar faces or traveling to familiar locations, but will often avoid challenging situations to hide symptoms or prevent stress or anxiety
	5 – Moderate Dementia	Needs assistance to carry out daily lives; inability to remember major details such as the name of a close family member (e.g.: grandchildren) or a home address. <ul style="list-style-type: none"> • Disoriented about time and place. • Trouble making decisions; may choose inappropriate clothing • Forget basic information about themselves
	6 – Moderately Severe Dementia	Requires full time care, generally unaware of their surroundings, cannot recall recent events, and have skewed memories of their personal past. May forget name of spouse. <ul style="list-style-type: none"> • Delusional behavior (e.g.: see caregiver as an imposter) • Obsessive behavior and symptoms • Anxiety, aggression, and agitation • Loss of willpower (cannot determine a purposeful course of action) Patients may begin to wander, have difficulty sleeping, and may experience hallucinations.
	7 – Severe Dementia	<ul style="list-style-type: none"> • Progressive loss of motor skills, ability to speak • Assistance needed with walking, eating, toileting

SCREENING FOR DEMENTIA

While systematic screening is not endorsed by the CDC or the US Preventive Medicine Task Force, it is essential to be aware of triggers that would prompt further testing. During routine encounters, with taking histories, ask and be aware of specific “triggers” for early signs of cognitive decline. Consider screening if concerns from family, friends or housing officers are raised.

RISK FACTORS FOR COGNITIVE IMPAIRMENT

Patients with MCI are at higher risk for developing dementia and there is a higher occurrence of Alzheimer’s Disease (AD) with 1% at age 70 and 50% at or above age 85. The risk further increases in patients with a family history of AD.

A provider should pay particular attention to the presence and ongoing management of modifiable medical conditions and other risk factors including:

- Chronic Vitamin D Deficiency
 - Evidence suggests chronic Vitamin D deficiency can increase the risk of developing dementia. Therefore, a provider could order a 25-hydroxyvitamin D level as part of the dementia workup, if vitamin D deficiency is suspected.
- Social Isolation, Physical Inactivity
 - Provider could consider offering programs emphasizing physical activities for patients at risk of developing cognitive impairment
- Depressive symptoms
- HTN
- Diabetes
- Heart Disease
- Gait Disorders
- Obstructive Sleep Apnea (OSA)
- Intellectual and/or developmental disabilities (see below)
- Tobacco Use/Exposure
 - Screen for tobacco use
 - Counseling to avoid tobacco use and exposure should be offered to CDCR patients

TRIGGERS TO SCREEN FOR COGNITIVE IMPAIRMENT OR DEMENTIA

Generally, early signs of dementia includes increased frequency of confusion or challenges with their surroundings. Note that symptoms are often first noted by others such as a cellmate or custody staff. Clinical triggers for suspecting and/or evaluating for dementia include:

- Momentary memory loss that disrupts activities of daily living
- Forgetting their locations or the date
- Taking longer than usual to complete daily tasks
- Increased anxiety, aggression, and frequency of mood changes
- Recent fall/hip fracture
- Cognitive concerns raised by others
- Lower initiative or motivation
- Increased difficulty with communicating clearly
- Losing or misplacing items frequently
- Frequent hospitalizations
- Change in medical condition/transfer to specialized medical bed
- Severe illness/risk of dying

Clinical questions to explore a patient’s cognitive decline:

- Do you have difficulty watching television, reading, or other activities because of your eyesight even with wearing glasses?
- Do you have any difficulty with your hearing? - Proceed with a whisper test or finger rub
- Have you fallen and hurt yourself since your last doctor’s visit?
- Do you ever leak urine unexpectedly or not have time to get to a bathroom?

If there is evident hearing and/or vision loss, referral for additional assessment and treatment should follow.

CONSIDERING DELIRIUM/DEPRESSION DURING SCREENING & ASSESSMENT

Delirium and depression are important to consider during screening and assessment for cognitive impairment.

- There is often more than one predisposing and precipitating factor
- The underlying cause may be a number of potentially reversible conditions
- Regular presentations may be associated with a worsening prognosis
- Makes other problems such as pain much harder to assess and treat
- Because symptoms fluctuate, best to assess for regularly rather than intermittently to detect changes in usual behavior.

While assessing for possible depression, providers can use the PHQ 2/9 PowerForm. Some differentiating features between delirium, dementia, and depression are listed in the table below:

FEATURE	DELIRIUM	DEMENTIA	DEPRESSION
ONSET	ACUTE	GRADUAL (YEARS)	EITHER GRADUAL OR SCALE
COURSE	TRANSIENT/REVERSIBLE	PROGRESSIVE/IRREVERSIBLE	SLOWLY FLUCTUATING/REVERSIBLE
COMMON COGNITIVE DEFICIT	ATTENTION	MEMORY	CONCENTRATION
ATTENTION	IMPAIRED	NORMAL	VARIABLE
MEMORY	IMPAIRED RECENT AND IMMEDIATE	IMPAIRED RECENT AND REMOTE	SELECTIVE IMPAIRMENT
PERCEPTION	IMPAIRED	USUALLY NORMAL	NORMAL
PSYCHOMOTOR BEHAVIOR	VERY ACTIVE OR UNUSUALLY STILL AND QUIET	NORMAL/LOSS OF COORDINATION	AGITATION/SLOWED
SPEECH	SOMETIMES SLURRED	USUALLY NORMAL	NORMAL, SLOWED

PATIENT SCREENING AND ASSESSMENT

SCREENING AND ASSESSMENT TOOLS

- In CDCR, we recommend Mini-Cog and Montreal Cognitive Assessment (MoCA) as initial and follow up screening tests. The scores that result from the screening tests should be taken into consideration with other clinical and behavioral factors to reach a diagnosis.
- Once a diagnosis has been made for cognitive impairment or dementia, patient's problems list should be updates accordingly.
- These various screening and assessment tools are discussed in the following sections.

SCREENING WITH THE MINI-COG

The Mini-Cog can be completed by the PCP during a chronic care visit if they suspect cognitive impairment or dementia based on the patient's behavior and any triggers for clinical suspicion that may present. Triggers for clinical suspicion are listed on [page 7](#).

Ideally, the Mini-Cog should be completed at a time when the patient will not feel rushed and is able to give their full attention.

The patient's score determines the next steps in screening for cognitive impairment:

- A score 4-5 is a negative screen for clinically significant cognitive impairment. No further action is needed.
 - ⇒ Note: Patients scoring a 4 or 5 who express concerns about their memory or cognition should be considered for further assessment with a MoCA.
- A score of 1-3 is a positive screen for cognitive impairment
 - ⇒ Providers should order a Medical Episodic Care Follow-up 20 with Reason: "MoCA Evaluation"

OTHER ELEMENTS OF SCREENING FOR POSSIBLE COGNITIVE IMPAIRMENT

- In addition to screening with Mini-Cog, providers should order the following: CBC, CMP, TSH, liver and kidney function tests, vitamin B12.
- If clinically suspected, provider should also order RPR, syphilis serological test and HIV.
- Screening for hearing loss, vision loss, depression and sleep apnea should be conducted as well, as these conditions may lead to behaviors and symptoms that may be confused with signs of cognitive impairment.

MONTREAL COGNITIVE ASSESSMENT (MOCA)

The MoCA is a brief assessment intended to assist providers in detecting cognitive impairments early, and is the most sensitive test available for detecting Alzheimer’s disease. It measures various domains of cognition and executive functions.

Administration of MoCA requires training and certification. This ensures ratings are consistent across providers and results are accurately assessing cognitive function. Certification is free of charge to CCHCS providers. Details on the certification process can be found [here](#).

A MoCA should be administered if a patient scores lower than a 4 on the Mini-Cog, or if a patient self-reports concerns about memory or cognition. Patients should also receive a MoCA if housed in a specialized medical bed for 6 months or longer.

The MoCA covers 11 tasks, including drawing a cube and a clock face, word recall, naming animals shown in drawings, repeating sentences, and four attention tests. Test includes assessment of executive function. The MoCA is available in many languages, and generally requires 10–15 minutes to administer. (See Attachment on page 18.)

The MoCA score, along with consideration of other factors, assists a provider in determining the appropriate diagnosis, and will support disposition planning for the patient (see pages 11-13).

Note that patients with ≤ 12 years of formal education have their MoCA score increased by one.

MOCA SCORE	INDICATIVE OF:
≥ 26	Patient is unlikely to have clinically significant cognitive impairment. Consider removing dementia-related diagnoses.
18-25	Patient may have mild cognitive impairment or early dementia
10-17	Patient may have moderate cognitive impairment or dementia.
< 10	Patient may have severe cognitive impairment or dementia.

For scores less than 26, consider the patient’s functional and other clinical and behavioral factors, and place an appropriate diagnosis in EHRS (Dementia [F03.90] or Moderate Cognitive Impairment [R41.89])

PATIENT SCREENING AND ASSESSMENT (CONTINUED)**Developmental Disabilities Program (DDP) Referral and Functional Assessment**

Patients who score less than a 26 on the MoCA should have the following completed:

- If the patient is in GP housing, a functional assessment is useful to align the housing needs of a patient based on their needs for prompting/redirection in the performance of Activities of Daily Living (ADLs).
- If the patient does not currently have a DDP designation, place an order for “MH DDP Evaluation”

The DDP is managed by Mental Health. DDP exists to support patients needing adaptive support, including patients with autism spectrum disorders, epilepsy, cerebral palsy, and neurocognitive disorders.

- DDP supports patients in CDCR who are in GP housing and have adaptive functioning deficits which inhibit their ability to independently perform essential ADLs. Adaptive functioning deficits may include deficits in communication, academic ability, ability for self care, or ability to self-advocate. Examples of adaptive supports include (DDP Adaptive Supports can be found [here](#) for reference):
 - ◊ Assistance in reading/writing CDCR paperwork
 - ◊ Verbal communication support including use of simpler language, frequent verbal reminders, asking patient to repeat what was stated to ensure understanding
 - ◊ Notice for pill administration staff to notify medical provider if medications are missed
 - ◊ Prompting and allotment of extra time for activities of daily living
 - ◊ Assistance in understanding CDCR rules and procedures
 - ◊ Monitoring by staff for changes in behavior and victimization of the patient
 - ◊ Privately asking patient about safety concerns to support in avoiding victimization or exploitation
- DDP screening is completed by psychologists or social workers and consists of a three-phase process.
- DDP designations are described below:

⇒ NCF—Adequate cognitive functioning

⇒ DD3—severe deficits

⇒ NDD—No Adaptive support needs

⇒ N/A—DDP evaluation not needed; indicates a condemned patient who has signed an Atkin’s waiver

⇒ DD1—mild deficits

⇒ Blank (no DDP designation listed)—patient is eligible for screening

⇒ DD2—moderate deficits

- Patients are screened within reception, and may be re-screened upon referral by staff, concerned family members and associates, or if patient self-reports any developmental disability or adaptive functioning deficits.
- Referrals are designated as either routine or urgent based on circumstance. Patients who are at risk of being victimized or who express safety concerns will be evaluated urgently.
- Patients enrolled in DDP will have regular follow-up via Interdisciplinary Support Team (IDST). IDST will occur for all DD1 patients every 12 months, DD2 patients every 6 months, and DD3 patients every 3 months.
- During IDST, the DDP psychologist will review the identified adaptive supports for the patient, and update their adaptive support needs and documentation as indicated.
- Patients with CI or dementia who transition back to GP housing should be referred for DDP evaluation if not already completed.

PATIENTS WITH INTELLECTUAL AND/OR DEVELOPMENTAL DISABILITIES

Patients with intellectual and/or developmental disabilities (I/DD) are at a higher risk for developing dementia, but it can be uniquely challenging to identify dementia in these patients, as the characteristics and presentation of each (I/DD and dementia) can be subtle. Having a sense of baseline functioning for patients with I/DD including their basic level of self care, communication, and daily activities, is useful in determining whether or not changes in these levels would warrant additional assessment.

ADVANCE DIRECTIVE AND POLST

Patients with early signs of cognitive decline should complete or update their [Advance Directive](#) to the degree possible while they retain some cognitive abilities. Identification of a surrogate decision maker is critical. A [Physician Orders for Life Sustaining Treatment \[POLST\]](#) should be completed if clinically indicated and patient has decision making capacity to do so.

Patients should not complete a new POLST or Advance Directive if their level of cognitive impairment would prohibit them from making clear and informed decisions. In these circumstances, a surrogate health care decision-maker should be contacted or a PC2604 filed.

Additional information regarding the Advance Directive, POLST and surrogate health care decision-makers is available in the [Palliative Care Guide](#).

TREATMENT (CONTINUED)

Though dementia cannot be cured, there are various treatments that may assist patients in managing their disease and supporting their safety and completion of ADLs.

Providers should additionally be mindful that a vast majority of patients with dementia have one or more chronic comorbid conditions, and generally are hospitalized at a much higher rate than those without cognitive impairment. In addition, pain or mood disorders can be challenging to detect in patients with cognitive impairment.

Care for patients with advanced Dementia should be based on a palliative approach. Additional involvement and assistance from the palliative/complex care team may be indicated. For support, providers can reach out to CDRCCHCSPalliativeCare@cdcr.ca.gov.

Treatment and care should be provided as per the person's Advanced Care Plan and may include some of the interventions listed below.

BEHAVIORAL INTERVENTIONS

- Exercise therapy
- Increased social interaction as isolation linked to increased cardiovascular risk, depression and worsening cognitive impairment
- Patient can be taught skills to promote good sleep and hygiene
- Cognitive stimulation therapy (e.g. physical games, sound and word association)

ENVIRONMENTAL/SOCIAL

- Safe Housing will be provided for patients with adaptive needs.
- Assistance with ADLs and for other activities as needed.
- Ensure timely completion of Advance Directive & POLST if indicated
 - ◊ If unsure, assess decision-making capacity using Aide to Capacity Evaluation (ACE) form located in Ad-Hoc folder in Cerner (consult with Care Team, Medical Management, Mental Health, and/or institution or headquarters Ethics Committee as needed).
 - ◊ Custody Counseling Staff or chaplains may be of assistance in locating family or friends who may serve as surrogate decision-maker

PHARMACOLOGIC MANAGEMENT

⇒ **Note: Literature suggests that dementia specific medications are of limited benefit and they are associated with significant toxicity. It is very important for prescribers to consider benefits and risks before starting one of these agents and to regularly assess the patient and to discontinue the medication when there is no evidence of benefit or with disease progression.**

There are four key points to consider when using medications in older adults:

1. There is a relative increase in the body's percentage of fat and a decrease in muscle mass and water. Thus water-soluble drugs become more concentrated and fat-soluble ones have a prolonged half-life.
2. Anatomically, the liver is functionally smaller with fewer hepatocytes and less blood flow, which can affect the clearance of medications and impact drug-drug interactions.
3. The renal system also changes with aging. Creatinine clearance can decline significantly, even when measured serum creatinine is in the normal range. This frequently requires dose adjustments and at times results in a relative contraindication for the use of certain classes of medications such as NSAIDs.
4. Changes in the nervous system such as a decrease in the number of pain receptors in the skin, and changes in the way nerve conduction occurs have been noted; however, this seems to have little influence on pain tolerance and pain perception.

Providers monitoring patients with cognitive impairment should:

- Review all prescribed medications to determine potential for medication-related cognitive impairment
- Dementia-specific medications (donepezil, galantamine, rivastigmine, memantine) may delay progression of disease by several months, but providers should be aware of marginal benefit and potential adverse effects of these medications.
- Donepezil is the preferred formulary agent (page 14). In addition, these medications do not generally improve cognition.
- For behavior disturbances in dementia:
 - ◊ Attempt to minimize anticholinergic burden if clinically appropriate
 - ◊ Dementia specific agents (e.g., cholinesterase inhibitors, glutamate antagonists), SSRIs (sertraline, citalopram), or buspirone may be effective for mild behavior disturbances associated with dementia
 - ◊ Antipsychotics may be indicated to manage more severe aggressive behavior or psychosis but may exacerbate cognitive deficit. Increased stroke risk is reported with any antipsychotic in the elderly. Use only with careful consideration of the risks and if no reasonable alternative behavioral management options are available.
- For patients with underlying psychiatric disorders, providers are encouraged to consult psychiatry.
- Cardiovascular risk reduction if consistent with patients treatment goals (eg: low dose aspirin, lipid lowering agent, antihypertensive)
- Treat other reversible causes that are discovered through the assessment process (OSA, depression, vitamin B12 deficiency, hypothyroid)

TYPES OF NEURODEGENERATIVE DISEASES

The following table offers a summary of various neurodegenerative diseases including Alzheimer's Disease, Vascular Dementia, Cognitive Traumatic Encephalopathy (CTE), Frontotemporal Dementia, Dementia with Lewy-Bodies, and Parkinson's Disease Dementia. The table offers guidance on the prevalence of each disease as well as general guidance on how to recognize each.

Other less common causes of neurodegenerative diseases include HIV infection, Huntington's chorea, Creutzfeldt-Jakob disease, late syphilis, Lyme disease, SLE, Sjogren's syndrome, normal pressure hydrocephalus or a brain tumor. Diagnosis requires a combination of history, physical exam, diagnostic scans or laboratory findings to reveal the specific medical condition causing the cognitive deficits.

DISEASE TYPE	CHARACTERISTICS
Alzheimer's Disease (AD)	<ul style="list-style-type: none"> Most common cause of dementia in older and younger patients Usually occurs after age of 65 years. Prevalence doubles every 5 years A terminal illness with gradual onset and progressive decline Memory impairment and reduced executive function are the most common initial symptom. Additional symptoms include word-finding difficulty, difficulty remembering names, recent events, apathy, depression, easily disoriented Late: Behavior problems, impaired judgment, orientation, confusion, difficulty walking, speaking, swallowing Symptoms interfere with daily living unlike MCI Progressive decline in cognition and functional ability that is not caused by an identifiable medical, psychiatric or neurological condition MRI of the brain may reveal brain atrophy <p><u>When to consider AD:</u> <i>if an older patient (> 65) presents to the clinic with complaints of losing his property, missing his scheduled doctors' appointments, receives CDC 115s for being late to work, is easily disoriented, and has word finding difficulties or speech hesitancy. Correctional officers or peers may also notice the patient tends to wander in the building or out in the yard. These patients can present to the clinic with depression or irritability.</i></p>
Vascular (multi-infarct) Dementia	<ul style="list-style-type: none"> Vascular dementia is the second most common cause of dementia. The patient may have a history of multiple TIAs or ischemic strokes. Multiple vascular conditions can cause dementia, including multiple small strokes, white matter brain lesions, and atherosclerosis. More common with advancing age Symptoms are similar to those of AD but focal neurological signs or evidence of a cerebrovascular process severe enough to cause dementia are common. <ul style="list-style-type: none"> Depression and apathy are common Classically, patients with vascular dementia generally have a 'stepwise' decline, while patients with AD have a more gradual decline in cognitive function. Patients have changes on brain imaging characterized by cortical infarcts, multiple lacunae and extensive white matter changes. Degree of findings on MRI does not necessarily correlate to degree of cognitive impairment. <p><u>When to consider vascular dementia:</u> <i>in an older patient with a history of strokes and the following risk factors for strokes: hypertension, diabetes, tobacco abuse, coronary artery disease or atrial fibrillation.</i></p>
Chronic Traumatic Encephalopathy (CTE)	<ul style="list-style-type: none"> Not age related. Incidence and prevalence are unknown The patient will have a history of repetitive brain trauma such as military personnel with combat-related blast injuries, athletes involved in contact sports such as professional boxers, football and soccer players Symptoms include headaches, emotional outbursts, depression, irritability, impulsivity, changes in behavior and mood that often precede significant cognitive impairment As CTE progresses, mild Parkinson's symptoms can also develop Cognitive testing will reveal a pattern of cognitive slowing (problems with performing timed tasks) Imaging will not show any specific brain atrophy patterns to indicate early CTE As CTE progresses in severity, pathologic findings appear to be specific (<i>accumulation of abnormal hyperphosphorylated tau in neurons and astroglia distributed around small blood vessels.</i>) <p><u>When to consider CTE:</u> <i>if a patient has a history of repetitive brain trauma such as boxing, playing football or was in the military and officers, peers or family members report changes in the patient's behavior or personality. The patient may also complain of problems with memory or thinking.</i></p>

Frontotemporal Dementia (FD)	<ul style="list-style-type: none"> • A common type of dementia after AD (approximately 10%) • FD is a group of disorders caused by the progressive loss of nerve cells in the frontal or temporal lobes • Onset is usually later in life, but typically occurs before the age of 65 • Memory loss is not a prominent symptom in the early stages of FD • Characterized by changes in personality/social behavior or difficulties in communication (discussed below). These changes include loss of empathy, social disinhibition, binge eating, compulsive behaviors, attempts to consume inedible objects, lack of insight or obsessive-compulsive behaviors. Onset is generally insidious, and progression is gradual. • Primary progressive aphasia (PPA) is considered a variant of frontotemporal dementia in which the principal cognitive deficit is progressive language impairment. PPA can be divided into non-fluent and fluent variants • Non-fluent variant: patients have problems with speech • Fluent variant: patients have problems with comprehension • Head scans will reveal focal degeneration of the frontal and/or temporal lobes. • Patients with PPA will have degenerative changes in the areas that control speech and language. <p><u>When to consider Frontotemporal Dementia:</u> Think FD if a patient presents to the clinic in either his 50s or early 60s because staff or peers are complaining the patient is frequently touching people or exhibiting other inappropriate behavior. The patient may exhibit compulsive behavior such as hoarding, cleaning or binge eating resulting in excessive weight gain.</p> <p><u>When to consider Primary Progressive Aphasia:</u> Think PPA if a patient presents with symptoms resembling a stroke such as difficulty forming words or problems with understanding others, but there is no other evidence of a stroke such as extremity weakness or gait instability.</p>
Dementia with Lewy Bodies (DLB)	<ul style="list-style-type: none"> • A common type of dementia after AD (approximately 10%) • Prevalence of DLB increases with age • Symptoms include fluctuating cognitive performance with intermittent confusion over minutes, hours, days or weeks <ul style="list-style-type: none"> ⇒ Gait and balance disorders, visuospatial function and attention affected more than memory ⇒ Recurrent visual hallucinations and delusions (unrelated to dopaminergic therapy) ⇒ Associated features include falls, disturbances of consciousness, autonomic dysfunction, REM sleep behavior disorder ⇒ Motor symptoms of Parkinsonism occurs 1-2 years after the onset of dementia • DLB can progress faster than AD • MRI of the brain will show nonspecific atrophy and white matter lesions <p><u>When to consider:</u> Think DLB when an older patient presents with visual hallucinations, fluctuations in attention, and dementia. This patient will also develop gait problems and bradykinesia 1-2 years after the onset of dementia.</p>
Parkinson's Disease Dementia (PDD)	<ul style="list-style-type: none"> • PDD is estimated to account for 3.6 % of all cases of dementia in the population • Older patients and patients with Parkinson's Disease whose onset was more than 60 years of age have a higher incidence of developing dementia <ul style="list-style-type: none"> ⇒ PDD is characterized by the onset of Parkinson's disease symptoms more than two years before the onset of dementia. Dementia usually develops in later stages of Parkinson's Disease • Severe memory loss is not common in patients with PDD although memory deficits are present • MCI can also be observed in patients with early Parkinson's Disease • In addition to the motor symptoms present in Parkinson's Disease, patients with PDD can have visual hallucinations, delusions, psychosis, depression, and sleep abnormalities <ul style="list-style-type: none"> ⇒ Problems with higher level functioning such as focus, visuospatial dysfunction, and planning can also occur • Certain medications (notably anticholinergics, L-Dopa, amantadine) can exacerbate visual hallucinations; if antipsychotics are indicated quetiapine (Seroquel) is the preferred agent for those with PDD • An MRI of the brain will show widespread neurodegeneration • Younger patients on mental health medication with symptoms of Tardive Dyskinesia should not be immediately diagnosed with Parkinson's Disease. Consider Parkinson's Disease if the symptoms do not resolve after the mental health medications have been held for several weeks. <p><u>When to consider:</u> An older patient with Parkinson's Disease who develops visual hallucinations, delusions, confusion, changes in memory, and has poor judgment.</p>

MONITORING

- Re-evaluate status of cognitive impairment or dementia with MoCA every 6 months if the patient is in a specialized medical bed.
- Otherwise, evaluate annually for all patients with mild cognitive impairment or dementia.
- If patient is in GP housing, be sure to add functional assessment along with MoCA completion
- Medication monitoring, including review of current medications that may potentially be inappropriate for use in older adults ([see Beer's Criteria](#))
 - Ask patient and/or caregiver about medication effectiveness and side effects
 - Reassess 6–8 weeks after initiating any dementia-specific medications, and at least every 6 months
 - Reassess for continued need of every medication(s) and discontinue any medication without clear benefit to patient, particularly those that may also impair cognition (see below)
- Evaluate mood and behavior with input from caregivers and observers.
- Reassess appropriateness of housing with consideration of behavior problems and safety concerns. Functional assessment as indicated.
- Assess for sleep dysfunction.
- Follow-up frequency will vary depending on clinical need. Providers should consider factors such as polypharmacy, presence of comorbid conditions, and the overall clinical picture when determining frequency.
- Note that unmanaged pain in patients with dementia is associated with an increased hospitalization rate. Sufficient pain management supports patient quality of life.

COMMONLY PRESCRIBED MEDICATIONS WHICH MAY IMPAIR COGNITION

Anticholinergics	• Ipratropium, tiotropium, benztropine
Muscle Relaxants	• Methocarbamol, cyclobenzaprine, carisoprodol
Antihistamines	• Diphenhydramine, chlorpheniramine, promethazine, hydroxyzine
Antimuscarinics	• Oxybutynin, tolterodine, darifenacin, trospium, fesoterodine (used for urinary urge incontinence and over-active bladder)
Antidepressants	• Tricyclic antidepressants, mirtazapine, trazodone, bupropion, SSRIs, lithium, MAO inhibitors
Antiepileptic Drugs	• Valproate, phenytoin, carbamazepine, gabapentin, levetiracetam, topiramate, lamotigine, pregabalin, clonazepam
Antipsychotics	• Chlorpromazine, haloperidol, prochlorperazine, fluphenazine, risperidone, quetiapine, aripiprazole, olanzapine, ziprasidone
Sedatives	• Benzodiazepines, buspirone, barbiturates
Opiates	• Codeine (cough syrup), morphine, oxycodone, hydrocodone, methadone, etc.
Antiparkinson Meds	• L-dopa, bromocriptine, amantadine
Other	• Hyoscyamine, cimetidine, clonidine, azapirone

DISPOSITION PLANNING

Patients who require mild supervision or prompting might benefit from development of a Behavioral Management Plan in coordination with Mental Health.

Patients who require significant supervision or prompting to complete their ADLs should be considered for Expanded Medical Parole (EMP), placement in a Memory Care Unit or Compassionate Release (as the length of these processes vary, patients may need to be housed in SMB as applications are being processed). More information on EMP and CR, and specific guidance on the application processes, is available in the [CCHCS Palliative Care Guide](#). More information on the internal Memory Care Units, and details on the application process, are on the following page.

Below is a summary of the various placement options that are available to patients based on conditions. *Please note: patients serving a sentence of life without parole or who are sentenced to death are not eligible for CR or EMP.*

Please note that placement options can be pursued concurrently and this can increase likelihood of placement.

PATIENT CONDITION		MEMORY CARE UNIT (INTERNAL)	EXPANDED MEDICAL PAROLE	COMPASSIONATE RELEASE
Dementia	Mild	X		
	Moderate	X	X	X
	Severe		X	X
Physically Incapacitated	No Post Release Plan (PRP)		X	
	Post Release Plan in Place			X
Terminal Illness	No Post Release Plan (PRP)		X	
	Post Release Plan in Place			X

COMPASSIONATE RELEASE (CR)

There are two ways that a patient medically qualifies for Compassionate Release:

1. Serious or advanced illness with an end-of-life trajectory. Examples include but are not limited to, metastatic solid-tumor cancer, end-stage organ disease, amyotrophic lateral sclerosis (ALS)
- OR**
2. Permanently medically incapacitated with a medical condition or functional impairment that renders the patient permanently unable to perform activities of basic daily living, including, but not limited to, bathing, eating, dressing, toileting, transferring or ambulation, or has progressive end-stage dementia, and the incapacitation did not exist at the time of the original sentencing.

In order for a patient to be approved for Compassionate Release, they need an accepted Post Release Plan (PRP). Although the types of PRPs accepted vary based on each individual case, the most common forms of PRPs are the patient being released to friends or family or patients qualifying for placement at a SNF.

When a patient is determined to be eligible for Compassionate Release, the following steps are taken (summarized in [workflow](#)):

- 1) The primary care physician will complete [CDC Form 128-C](#)
- 2) PCP notifies the Complex Care team of the submission by emailing the 128-C to CCHCSComplexCare@cdcr.ca.gov
- 3) PCP works with Nursing counterparts to complete [CDCR Form 7385-CR](#)
- 4) PCP submits the 128-C and 7385-CR to the institution Chief Medical Executive (CME) for review
- 5) If approved by the CME, the signed form will be submitted to the Classification and Parole Representative (C&PR) and CCHCSComplexCare@cdcr.ca.gov. C&PR ensures statutory requirements are met, and confirms patient has a viable post-release plan.
- 6) C&PR adds additional custodial forms and signs the CR packet.

- 7) The institution Warden reviews the packet to ensure completeness/accuracy, signs, and routes it to Classification Services Unit (CSU).
- 8) CSU provides a Case Summary and the 128-C to the Statewide CME to confirm medical eligibility.
- 9) If the Statewide CME approves, CSU will send the full packet requesting CR to the county sentencing court.
- 10) The Statewide Palliative Care team contacts the corresponding county to provide updated medical information.
- 11) Within 10 days of receiving CCHCS' recommendation, the sentencing court will hold a hearing to consider recall of sentence.

It is important to note that CCHCS has 45 days to submit a patient to the sentencing courts for consideration of recall of sentence through the CR process. As such, it is crucial that these steps are completed timely. This also supports timely resolution for patients who have a serious illness with end of life trajectory, allowing the most time possible.

Additional detail on the Compassionate Release Process can be found in the [Palliative Care Guide](#). Additionally, forms related to the submission of a patient are housed in Lifeline [here](#).

EXPANDED MEDICAL PAROLE

There are two ways that a patient can qualify for EMP:

1. Permanently medically incapacitated with a medical condition or functional impairment that renders the patient permanently unable to perform activities of basic daily living, including, but not limited to, bathing, eating, dressing, toileting, transferring or ambulation

OR

2. Moderate/severe dementia/cognitive impairment requiring supervision and prompting in order to complete ADLs.

AND

Patient qualifies for placement at a licensed health care facility.

When a patient is determined as being eligible for EMP, the following steps outline the process for a patient to be considered:

1. Primary care team completes [Medical Parole Form 7478](#), documentation supporting patient's functional status and support needs (e.g. ADLs), and MoCA when applicable, and submits to the institution CME for review and signature. A copy of all paperwork will be sent to the Utilization Management (UM) mailbox at MedicalParole@cdcr.ca.gov.
2. The institution CME forwards the CDCR 7478-EMP and MoCA when applicable to the C&PR, with a copy submitted to the Utilization Management (UM) mailbox at MedicalParole@cdcr.ca.gov.
3. C&PR reviews the forms to ensure patient meets custody requirements. If so, the Correctional Counselor I (CC I) prepares an EMP Evaluation Report and CDCR 611 Release of Program Study, and submits both back to the C&PR.
4. The C&PR submits the completed documents to the Warden or Chief Deputy Warden for signature. If approved, the EMP packet is submitted to Classification Services Unit (CSU) and a copy is submitted to the UM mailbox (MedicalParole@cdcr.ca.gov).
5. CSU ensures packet is complete and submits to the Board of Parole Hearings (BPH) to schedule a hearing.
6. If approved for medical placement, the decision will include any facility requirements and patient restrictions imposed by BPH. The decision becomes invalid if an appropriate medical facility is not verified by DAPO. If the BPH approves the patient for EMP placement, HQ UM proposes an appropriate medical facility for the patient.
7. If accepted during a transfer of care call, patient will be placed at the facility.

More detailed guidance on the Expanded Medical Parole process and associated forms can be found [here](#).

INTERNAL MEMORY CARE UNITS

Overview

- The Memory Care Units (MCU) are designated are specialized units that provide assisted living for those with cognitive impairment.
- Ideally, the MCU is designed for patients with mild to moderate cognitive impairment that can are physically independent with ADLs. These patients should be able to physically perform their own ADLs including eating and toilet without assistance. However, they likely require supervision or prompting to finish their food, take their medications, shower and attend certain activities or medical appointments. Patients with advanced dementia generally do not qualify for the MCU since the goal is to slow the decline of patients with mild cognitive impairment and these patients may be bedbound and require a CTC level of nursing support for transferring, eating, toileting or continence care.
- In contrast, highly functional patients with mild cognitive impairment who do not require supervision or prompting will not qualify for the MCU.
- Patients who have behavioral issues including aggressive behavior, history of refusing care or not participating in group activities may not be considered an ideal candidate for this unit, but will be reviewed on a case by case basis. Many patients demonstrate improved behaviors and increased participation in activities in a more supportive environment. The expectation of the patients in the MCU are able to participate in therapeutic activities.
- Recreational therapists engage with patients through a variety of interactive activities that allow patients to remain active and intellectually stimulated. These activities included coloring, drawing, dancing, music and playing interactive games. These activities are offered in both small and large group settings to provide a safe environment for that is responsive to patient needs.
- Social gatherings are important in keeping the patients intellectually stimulated and physically active.

Admission Criteria and Process

- Details of the admission criteria, exclusionary criteria, and the referral process can be found [here](#).

MEDICATION TABLES

MEDICATION	DOSING*	ADVERSE EFFECTS/INTERACTIONS	COMMENTS*
CHOLINERASE INHIBITORS			
Donepezil (Aricept)* \$ Oral Tablet: 5mg, 10mg 23mg (not to be crushed/chewed) Oral Disintegrating Tablet (ODT) 5mg, 10mg	Mild to Moderate AD: <u>Initial dose:</u> 5mg/day at bedtime <ul style="list-style-type: none"> May increase to 10 mg/day after 4-6 weeks. Moderate to Severe AD: <u>Initial dose:</u> 5 mg/day at bedtime. <ul style="list-style-type: none"> May increase to 10 mg/day after 4-6 weeks. May consider increase to 23 mg/day after 3 months 	<u>Adverse effects:</u> <ul style="list-style-type: none"> Major: AV Block, syncope, seizures Common: Diarrhea, nausea, vomiting, dyspepsia, weight loss, insomnia, fatigue, dizziness, headache <u>Drug interactions:</u> <ul style="list-style-type: none"> Cholinesterase inhibitors Succinylcholine, similar neuromuscular blocking agents, or Cholinergic agonists <u>Warnings/Precautions:</u> <ul style="list-style-type: none"> Patients should be monitored closely for symptoms of active or occult gastrointestinal bleeding, especially those who are at increased risk for developing ulcers. Use caution when prescribing to patients with a history of asthma or obstructive pulmonary disease. 	<u>Contraindications:</u> <ul style="list-style-type: none"> Patients with known hypersensitivity to donepezil hydrochloride or to piperidine derivatives Caution in bradycardia or conduction abnormalities (sick sinus syndrome, left bundle branch block) Avoid in patients with uncontrolled asthma/COPD or active peptic ulcer disease (PUD) Minimize side effects by waiting 6 weeks to increase dose Caution in patient < 55 kg, severe GI side effects and weight loss possible Caution in BPH or bladder outlet obstruction
Rivastigmine (Exelon*) \$\$\$ <u>Capsules:</u> 1.5mg, 3mg 4.5 mg, 6 mg <u>Transdermal patches:</u> 4.6 mg/24 hour 9.5 mg/24 hour, 13.3 mg/24 hour	<u>Initial Dose:</u> 1.5 mg orally twice daily with food <ul style="list-style-type: none"> May increase by 3 mg/day every two weeks[†] to maximum 6 mg twice daily. Usual dose 9-12 mg divided twice daily. If therapy interrupted three or more days, restart at lowest dose. <u>Patch:</u> 4.6mg/24 hr, increase after 4 weeks to 9.5mg/24 hr, consider increase after 4 more weeks to 13.3mg/24 hr <ul style="list-style-type: none"> If therapy interrupted ≥ 3 days, restart at same or lower strength patch. [†] for Parkinson's associated dementia increase dose at 4 week intervals.	<u>Adverse effects:</u> <ul style="list-style-type: none"> Major: Stevens-Johnson Syndrome, bradycardia, hypotension, Adams-Stokes syndrome, CNS depression may impair alertness Common: syncope, dizziness, falling, headache, agitation, nausea, vomiting (sometimes severe), diarrhea, weight loss, abdominal pain, tremor, Insomnia, somnolence <u>Drug interactions:</u> <ul style="list-style-type: none"> Cholinesterase inhibitors Concomitant use with Metoclopramide, Beta—Blockers, or Cholinomimetic and Anticholinergic drugs is not recommended 	<u>Contraindications:</u> <ul style="list-style-type: none"> Caution in bradycardia or conduction abnormalities (sick sinus syndrome, left bundle branch block) Avoid in patients with uncontrolled asthma/COPD or active peptic ulcer disease Caution in patient <50kg, may have more severe nausea and vomiting Caution in mild/moderate renal or hepatic impairment, BPH or bladder obstruction, or seizure disorder Avoid with severe renal or hepatic impairment
NMDA (N-MEHTYL-D-APARTATE) GLUTAMATE ANTAGONIST			
Memantine (Namenda*) \$-\$\$ <u>IR tablets:</u> 5 mg, 10 mg <u>ER capsules:</u> 7 mg, 14 mg, 21 mg, 28 mg	<u>Initial dose:</u> IR tablet: 5 mg orally daily. Increase at weekly intervals by 5 mg/day to max dose 20 mg/day. Give doses > 5 mg/day in 2 divided doses. <u>ER capsule:</u> 7 mg once daily up to target of 28 mg once daily. Wait at least 1 week between dose changes.	<u>Adverse effects:</u> <ul style="list-style-type: none"> Major: Stevens-Johnson Syndrome Common: Dizziness, headache, confusion, constipation, diarrhea HTN, fatigue, syncope 	<u>Contraindications:</u> <ul style="list-style-type: none"> Caution with severe renal or hepatic impairment; history of seizures or cardiovascular disease Caution with drugs that change urine pH such as carbonic anhydrase inhibitors and sodium bicarbonate

Galantamine (Razadyne) \$-\$\$ <u>IR & ER Tablets:</u> 8 mg, 16 mg, 24 mg <u>Oral Solution:</u> 4 mg/ml	<u>Initial Dose:</u> IR tablet: 4 mg orally twice daily with food <u>ER tablet:</u> 8 mg once daily. <ul style="list-style-type: none"> After 4 weeks at initial dose, may increase dose at 4 week intervals to 16-24 mg per day in 2 divided doses (IR) or once daily (ER). If therapy interrupted three or more days, restart at lowest dose. 	<u>Adverse effects:</u> <ul style="list-style-type: none"> Major: AV Block, bradycardia, syncope, seizures, urinary obstruction Common: Nausea, anorexia, vomiting, and diarrhea, weight loss, dizziness, headache, insomnia <u>Drug interactions:</u> <ul style="list-style-type: none"> Ketoconazole, Erythromycin, Memantine, Cimetidine, Ranitidine, Paroxetine, Amitriptyline, Fluoxetine, Fluvoxamine, Quinidine 	<u>Contraindications:</u> <ul style="list-style-type: none"> Caution in bradycardia or conduction abnormalities (sick sinus syndrome, left bundle branch block) Avoid in patients with uncontrolled asthma/COPD or active PUD Caution in mild or moderate renal or hepatic impairment, avoid with severe renal or hepatic disease Caution in BPH or bladder outlet obstruction or seizure disorder
AMYLOID-BETA TARGETING MONOCLONAL ANTIBODIES			
Lecanemab (Leqembi) \$\$\$\$ Injection: 500mg/5 mL 200mg/2 mL	<u>Initial Dose:</u> 10mg/kg IV infusion which must be diluted and administered over 1 hour, once every two weeks <ul style="list-style-type: none"> Dilution in 250mL NS; administer within 4 hours of dilution 	<u>Adverse effects:</u> <ul style="list-style-type: none"> Amyloid related imaging abnormalities (ARIA), confusion, dizziness, headache, nausea, seizures, vision changes, hypersensitivity <u>Drug Interactions:</u> <ul style="list-style-type: none"> Antithrombotic or thrombolytics may increase the risk of bleeding in the brain 	<u>Contraindications:</u> <ul style="list-style-type: none"> None Note that the use of Lecanemab has not been approved by CCHCS/CDCR at the time of this Care Guide's publication

BOLD = Formulary* For complete lists of side effects, drug interactions, and contraindications consult prescribing information.

For potential drug-drug interactions based on a patient's specific medications, refer to the [Drug-Drug Interaction Tool on Lifeline](#)

Attachment A: Mini-Cog

Below is an example of the paper Mini-Cog form. A PowerForm that can be used for scoring and documentation is available within EHRS, located in the Ad-hoc section, All Items, Provider Documentation folder.

Mini-Cog™

Instructions for Administration & Scoring

ID: _____ Date: _____

Step 1: Three Word Registration

Look directly at person and say, "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now." If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).

The following and other word lists have been used in one or more clinical studies.¹⁻³ For repeated administrations, use of an alternative word list is recommended.

Version 1	Version 2	Version 3	Version 4	Version 5	Version 6
Banana	Leader	Village	River	Captain	Daughter
Sunrise	Season	Kitchen	Nation	Garden	Heaven
Chair	Table	Baby	Finger	Picture	Mountain

Step 2: Clock Drawing

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go." When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

Step 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Word List Version: _____ Person's Answers: _____

Scoring

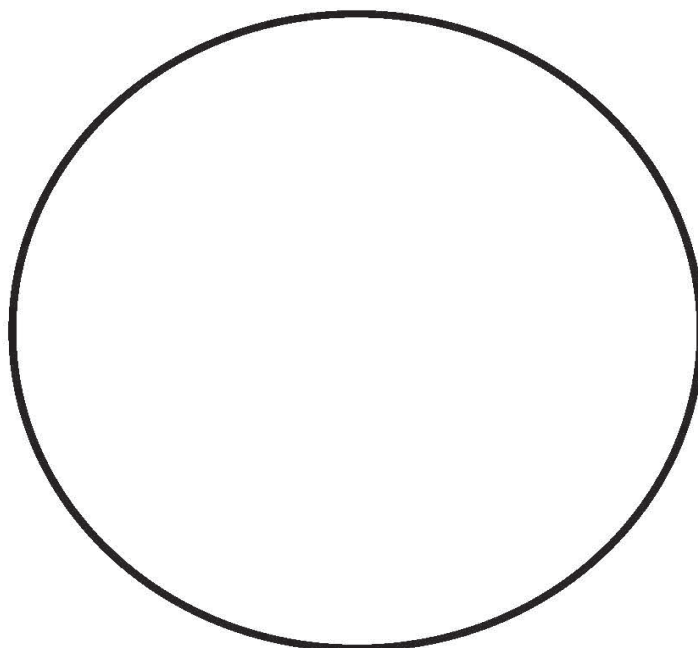
Word Recall: _____ (0-3 points)	1 point for each word spontaneously recalled without cueing.
Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.
Total Score: _____ (0-5 points)	Total score = Word Recall score + Clock Draw score. A cut point of <3 on the Mini-Cog™ has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

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Attachment A: Mini-Cog

Clock Drawing

ID: _____ Date: _____

**References**

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7. Scanlan J & Borson S. The Mini-Cog: Receiver operating characteristics with the expert and naive raters. *Int J Geriatr Psychiatry* 2001; 16: 216-222.

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Attachment A: Mini-Cog

The following screenshots show the Mini-Cog PowerForm (found in Ad-Hoc) as it appears in EHRS. In addition to completion of the PowerForm to capture patient score, the completed paper form should be scanned into EHRS.

Mini-Cog

Instructions for Administration and Scoring

Step 1: Three Word Registration

Look directly at person and say, "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now."

If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).

The following and other word lists have been used in one or more clinical studies. For repeated administrations, use of an alternative word list is recommended.

☐ Version 1
 ☐ Version 2
 ☐ Version 3
 ☐ Version 4
 ☐ Version 5
 ☐ Version 6

Banana	Leader	Village	River	Captain	Daughter
Sunrise	Season	Kitchen	Nation	Garden	Heaven
Chair	Table	Baby	Finger	Picture	Water

Step 2: Clock Drawing

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go. "When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

Step 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Word List Version:

MC_Word_List

Person's Answers:

MC_Person_Answers1

MC_Person_Answers2

MC_Person_Answers3

Scoring

Word Recall:

MC_Word_Recall

1 point for each word spontaneously recalled without cueing.

Clock Draw:

MC_Clock_Draw

Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10).
 Hand length is not scored.
 Inability or refusal to draw a clock (abnormal) = 0 points.

Total Score:

MC_Total_Score

Total score = Word Recall score + Clock Draw score.

 A cut point of <3 on the Mini-Cog has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher.

 When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

Attachment B: Montreal Cognitive Assessment

Below is an example of the paper Montreal Cognitive Assessment (MoCA) form. A PowerForm that can be used for scoring and documentation is available within EHRS, located in the Ad-hoc section, All Items, Provider Documentation folder.

MONTREAL COGNITIVE ASSESSMENT (MOCA®)								Name:		Date of birth:											
Version 8.1 English								Education:		DATE:											
VISUOSPATIAL/EXECUTIVE								Sex:													
								Copy cube		Draw CLOCK (Ten past eleven) (3 points)		POINTS									
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>								<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		___/5									
NAMING																					
								<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		___/3									
MEMORY																					
Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.								FACE		VELVET		CHURCH		DAISY		RED		NO POINTS			
1 ST TRIAL																					
2 ND TRIAL																					
ATTENTION																					
Read list of digits (1 digit/ sec.).								Subject has to repeat them in the forward order.		[] 2 1 8 5 4											
								Subject has to repeat them in the backward order.		[] 7 4 2						___/2					
Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors								[]		F B A C M N A A J K L B A F A K D E A A A J A M O F A A B						___/1					
Serial 7 subtraction starting at 100.								[] 93		[] 86		[] 79		[] 72		[] 65		___/3			
								4 or 5 correct subtractions: 3 pts,		2 or 3 correct: 2 pts,		1 correct: 1 pt,		0 correct: 0							
LANGUAGE																					
Repeat: I only know that John is the one to help today.								[]								___/2					
The cat always hid under the couch when dogs were in the room.								[]													
Fluency: Name maximum number of words in one minute that begin with the letter F.								[]		_____ (N ≥ 11 words)						___/1					
ABSTRACTION																					
Similarity between e.g. banana - orange = fruit								[]		train - bicycle		[]		watch - ruler		___/2					
DELAYED RECALL																					
(MIS)								Has to recall words WITH NO CUE		FACE		VELVET		CHURCH		DAISY		RED		Points for UNCUE recall only	
Memory Index Score (MIS)								X3		[]		[]		[]		[]		[]			
								X2		Category cue											
								X1		Multiple choice cue										MIS = ___/15	
ORIENTATION																					
[] Date								[] Month		[] Year		[] Day		[] Place		[] City		___/6			
© Z. Nasreddine MD								www.mocatest.org		MIS: /15											
Administered by: _____										(Normal ≥ 26/30)											
Training and Certification are required to ensure accuracy										Add 1 point if ≤ 12 yr edu								TOTAL ___/30			

Attachment B: Montreal Cognitive Assessment

The following screenshots show the MoCA PowerForm (found in Ad-Hoc) as it appears in EHRS. In addition to completion of the PowerForm to capture patient score, the completed paper form should be scanned into EHRS.

Montreal Cognitive Assessment (MOCA)						Points
Please use this form to capture MoCA assessment completed by patient on paper.						
This form is to be used by providers who have been trained and certified to administer the MoCA. If you are not certified but wish to become certified, please follow this link: https://www.mocatest.org/training-certification/						
Visuospatial/ Executive						
Alternating Serial numbers and letters	Cube	Clock			Visuospatial score	
<input type="radio"/> 1 <input type="radio"/> 0	<input type="radio"/> 1 <input type="radio"/> 0	<input type="radio"/> 1 <input type="radio"/> 0	<input type="radio"/> 1 <input type="radio"/> 0	<input type="radio"/> 1 <input type="radio"/> 0	MOCA_Visuospe	
Must be completed in order and this pattern: Number->Letter->Number->Letter		Contour Numbers Hands Draw CLOCK (Ten past eleven) (3 Points)				
Naming						
Lion	Rhino	Camel			Naming score	
<input type="radio"/> 1 <input type="radio"/> 0	<input type="radio"/> 1 <input type="radio"/> 0	<input type="radio"/> 1 <input type="radio"/> 0			MOCA_Naming_	
Memory						
	Face	Velvet	Church	Daisy	Red	Memory score - N/A
Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes.	1st Trial	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	
	2nd Trial	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No	
Attention					Attention score	
Read list of digits (1 digit/sec.)	Subject has to read them in forward order. 2, 1, 8, 5, 4 Subject has to read them in backward order. 7, 4, 2				<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	MOCA_Attention
	Read list of letters below. The subject must tap with his hand at each letter A. No points if 2 or more errors.				<input type="radio"/> 1 <input type="radio"/> 0	
	FBACMNAAJKLBAFAKDEAAAJAMOF AAB Serial 7 subtraction starting at 100 93, 86, 79, 72, 65 4 or 5 correct subtractions: 3 pts 2 or 3 correct: 2 pts 1 correct: 1 pt 0 correct: 0 pt				<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3	

About Dementia

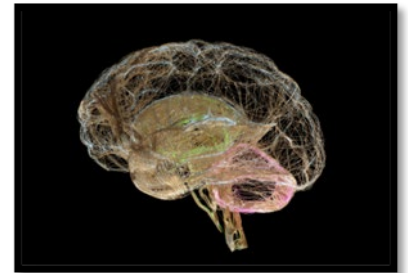
What is dementia? Dementia is a condition that is caused by loss of brain cells and brain function. It can affect your memory and the way you think. Every case is different depending on the underlying cause and the area of the brain that is affected. Your doctor will help keep track of your symptoms and your needs.

What are the symptoms of dementia?

- Forgetting all sorts of things
- Confusion
- Trouble with language (for example, not being able to find the right words for things)
- Trouble concentrating and thinking clearly
- Problems with tasks such as paying bills or balancing a checkbook
- Getting lost in familiar places

As dementia gets worse, it can cause:

- Anger or aggression
- A person to see things that aren't there or believe things that aren't true
- Impair ability to eat, bathe, dress, or do other everyday tasks
- Loss of bladder and bowel control

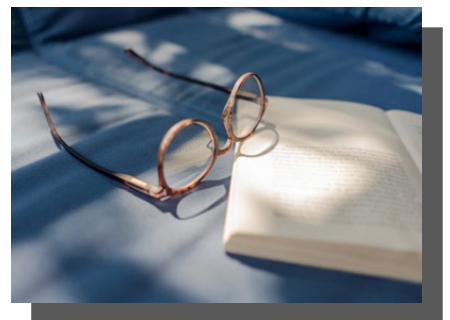


How is dementia treated? That depends on what your needs are and the type of dementia you have.

- ✓ Medical staff will watch your symptoms and work with you to find solutions to the problems that might come up.
- ✓ You will be taught new skills to help you remember things and organize your day better.
- ✓ If you have Alzheimer's Disease, there are medicines that might help.
- ✓ If you have dementia related to your blood circulation, your doctor will work on keeping your blood pressure and cholesterol as close to normal as possible to reduce further injury to your brain.
- ✓ If you get anxious or depressed your doctor may prescribe medication.

Can dementia be prevented? – There are no proven ways to prevent dementia. But here are some things that seem to help keep the brain healthy:

- Physical activity
- Social Interaction
- Keeping the brain busy, for example by reading or doing puzzles



What You Should Know About Advance Care Planning

Patients with dementia often have so much trouble with thinking and memory that they are not able to tell the doctor their wishes for medical treatment. This is especially true when it comes to wishes about end of life treatment including being on machines or having a feeding tube. Writing down your wishes now will help be sure they are followed later. It is very important to let your medical team know who you would want to make decisions for you if you were not able to due to a serious medical condition.

What is advance care planning?

- Thinking and planning ahead about what kind of medical care you want as you get sicker.
- The kind of medical treatment you want usually depends on what is important to you.
- Talking about your wishes with loved ones and your doctors and nurses and writing them down will help make sure that your wishes are followed.

What is an Advanced Directive?

- Advance Directives are papers used to write down your wishes for end of life care.
- They allow you to say what you want so that family, friends, doctors, and nurses will know for sure what you want if you can no longer speak for yourself.
- An Advance Directive allows you to choose someone to make medical decisions for you if you can no longer make them.
- In CDCR we use CDCR Form 7421 Advance Directive for Health Care.

Listed below are some of the things to consider regarding your end of life wishes. You may wish to circle the items that are most important to you to discuss with your provider when you complete your Advance Directive.

- Physical comfort
- Relief of pain and distress
- To die naturally
- To live as long as possible no matter what
- To be able to care for my physical needs
- To be able to recognize family & friends
- To be able to make my own decisions
- To receive palliative (comfort) care
- Would you want to have CPR done?
- Would you want a feeding tube?
- Would you want to be kept alive by machines (ventilator) in the following cases?:
 - If my brain's thinking functions were destroyed?
 - If I were near death with a terminal illness?
- Is there a person you want to help attend to your spiritual needs as death nears?
- Is there someone you wish to have make medical decisions for you (called a health care surrogate or agent) when/if you are no longer able to speak for yourself?
- If you are very sick and near the end of your life is there a family member/friend you would like to called?
- Is there someone different to call after your death?



Q: What if I change my mind?

- You may change your mind verbally at any time but should complete a new Advance Directive (CDCR Form 7421) as soon as possible. You should complete an Advance Directive even when you are young and perfectly healthy just in case you unexpectedly become sick or injured and are not able to communicate.

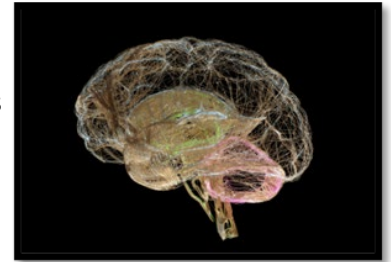
**TALK TO YOUR DOCTOR OR ANY MEMBER OF YOUR HEALTH CARE TEAM
TO COMPLETE OR UPDATE YOUR ADVANCE DIRECTIVE.**

Acerca de la demencia

¿Qué es la demencia? La demencia es una enfermedad causada por la pérdida de células y funciones cerebrales. Puede afectar la memoria y la forma de pensar. Cada caso es diferente según la causa subyacente y la zona del cerebro afectada. Su médico le ayudará a hacer un seguimiento de sus síntomas y sus necesidades.

¿Cuáles son los síntomas de la demencia?

- Olvidar todo tipo de cosas
- La confusión
- Problemas con el lenguaje (por ejemplo, no encontrar las palabras adecuadas)
- Dificultad para concentrarse y pensar con claridad
- Problemas para realizar tareas como pagar facturas o llevar un talonario de cheques
- Perderse en lugares familiares



A medida que la demencia empeora, puede causar:

- Ira o agresividad
- Que una persona vea cosas que no existen o crea cosas que no son ciertas
- Deterioro de la capacidad para comer, bañarse, vestirse o realizar otras tareas cotidianas
- Pérdida del control de la vejiga y los esfínteres

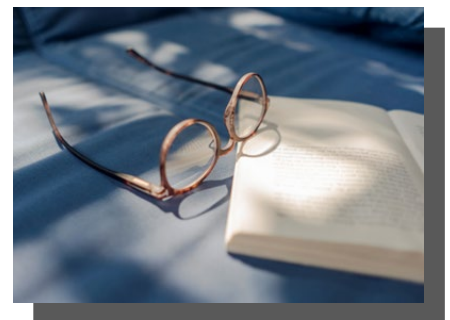
¿Cómo se trata la demencia?

 Depende de sus necesidades y del tipo de demencia que padezca.

- ✓ El personal médico controlará sus síntomas y trabajará con usted para encontrar soluciones a los problemas que puedan surgir.
- ✓ Se le enseñarán nuevas habilidades que le ayudarán a recordar cosas y a organizar mejor su día.
- ✓ Si tiene la enfermedad de Alzheimer, hay medicamentos que pueden ayudarlo.
- ✓ Si tiene demencia relacionada con la circulación sanguínea, su médico se esforzará por mantener la presión arterial y el colesterol lo más cerca posible de lo normal para reducir las lesiones cerebrales.
- ✓ Si sufre ansiedad o depresión, su médico puede recetarle medicación.

¿Se puede prevenir la demencia? – No se ha demostrado ninguna forma de prevenir la demencia. Pero aquí hay algunas cosas que parecen ayudar a mantener el cerebro sano:

- La actividad física
- La interacción social
- Actividades para ejercitar la mente, por ejemplo leyendo o haciendo rompecabezas



Lo qué debe saber sobre la planificación anticipada de la atención médica

Los pacientes con demencia suelen tener muchos problemas de pensamiento y memoria, por lo que no son capaces de expresar al médico sus deseos sobre el tratamiento médico. Esto es especialmente cierto cuando se trata de los deseos sobre el tratamiento al final de la vida, como estar conectado a máquinas o tener una sonda de alimentación. Escribir sus deseos ahora le ayudará a asegurarse de que se cumplan más adelante. Es muy importante que informe a su equipo médico de quién le gustaría que tomara decisiones en su nombre si usted no pudiera hacerlo debido a una enfermedad grave.

¿Qué es la planificación anticipada de cuidados?

- Pensar y planificar con antelación qué tipo de atención médica desea recibir a medida que enferma.
- El tipo de tratamiento médico que desea suele depender de lo que es importante para usted.
- Hablar de sus deseos con sus seres queridos y con sus médicos y enfermeros, y escribirlos, le ayudará a asegurarse de que se cumplan.

¿Qué es una declaración de voluntades anticipadas?

- Las declaraciones de voluntades anticipadas son documentos que se utilizan para escribir sus deseos sobre los cuidados que recibirá en la etapa final de su vida.
- Le permiten expresar sus deseos para que la familia, los amigos, los médicos y el personal de enfermería sepan con certeza lo que usted quiere si ya no puede hablar por sí mismo.
- Una declaración de voluntades anticipadas le permite elegir a alguien para que tome decisiones médicas por usted si usted ya no puede tomarlas.
- En el CDCR utilizamos el Formulario 7421 del CDCR sobre voluntades anticipadas para la asistencia médica.

A continuación se enumeran algunas de las cosas que debe tener en cuenta en relación con sus deseos para la etapa final de su vida. Marque con un círculo los puntos que considere más importantes para debatir con su médico cuando complete su declaración de voluntades anticipadas.

- Comodidad física
- Alivio del dolor y la angustia
- Morir de forma natural
- Vivir el mayor tiempo posible como sea
- Poder atender mis necesidades físicas
- Ser capaz de reconocer a familiares y amigos
- Ser capaz de tomar mis propias decisiones
- Recibir cuidados paliativos (de confort)
- ¿Desea que le realicen una RCP?
- ¿Desea una sonda de alimentación?
- ¿Desearía que le mantuvieran con vida mediante máquinas (respirador) en los siguientes casos?:
 - ¿Si se destruyeran las funciones pensantes de mi cerebro?
 - ¿Si estuviera cerca de la muerte con una enfermedad terminal?
- ¿Hay alguna persona que quiera que le ayude a atender sus necesidades espirituales cuando se acerque la muerte?
- ¿Desea que alguien tome decisiones médicas por usted (un sustituto o agente de asistencia médica) cuando usted ya no pueda hablar por sí mismo?
- Si está muy enfermo y cerca del final de su vida, ¿hay algún familiar/amigo al que le gustaría que llamaran?
- ¿Hay alguien a quien le gustaría llamar después de su muerte?



P: ¿Y si cambio de opinión?

- Puede cambiar de opinión verbalmente en cualquier momento, pero debe completar una nueva declaración de voluntad anticipada (Formulario 7421 del CDCR) lo antes posible. Debe completar una voluntad anticipada aun cuando sea joven y esté perfectamente sano, en caso de que se enferme o se lesione inesperadamente y no pueda comunicarse.

**HABLE CON SU MÉDICO O CON CUALQUIER MIEMBRO DE SU EQUIPO MÉDICO
PARA COMPLETAR O ACTUALIZAR SU DECLARACIÓN DE VOLUNTAD ANTICIPADA.**