Cognitive Impairment Care Guide

May 2025

CALIFORNIA CORRECTIONAL
HEALTH CARE SERVICES

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/

Record of Changes

- Various formatting standardizations to improve readability.
- Updated the language from “functional assessment” to “level of care (LOC) assessment) in various places.
- Added section detailing the evaluations that a provider should consider when assessing for CI/dementia.
- Added PHQ2/9 to the summary algorithm, to be consistent with recommendation that providers consider possible depression as a cause of apparent behavioral changes.
- Clarified the Problem list entries for patients with identified cognitive impairment.
- Removed bullet reading “regular presentations may be associated with a worsening prognosis” in section “Considering Delirium/Depression During Screening & Assessment”, as it was found to be unclear.
- Added clarifying language in the “Screening with a Mini-Cog” section to clarify that while a score of less than 3 is considered an abnormal test, we recommend using a score of less than 4 for follow up with Montreal Cognitive Assessment (MoCA), for greater sensitivity in the correctional population.
- Added clarifying language in first bullet of “DDP Referral and LOC Assessment”, to note that patients in specialized medical beds are expected to have their adaptive support needs met within their housing.
- Various minor changes in the section about Types of Neurodegenerative diseases.
- Removed the mention of post release plans as a requirement for Compassionate Release. The previous version was published before the department had made a determination that a viable post release plan is not needed to move a Compassionate Release application forward.
- Removed section detailing Expanded Medical Parole (EMP) and other references to EMP, as the program is inactive at time of this revision.

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CCHCS Care Guide: Cognitive Impairment

GOALS

- ✓ **Early identification and evaluation of affected patients**
- ✓ **Ensure connection with appropriate resources and housing**
- ✓ **Compassionate Release 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 level of care (LOC) assessments and alternate housing**
- **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, and vitamin B12. If high suspicion, add syphilis and HIV testing.
- 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+ is considered normal. A score of 25 or below may indicate cognitive impairment.
- LOC 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 9.

TREATMENT

By identifying the earliest stages of cognitive impairment as they occur, and quickly intervening, the onset of later stages may be delayed. Though most cases of cognitive impairment are progressive, some may be reversible by treating the underlying condition.

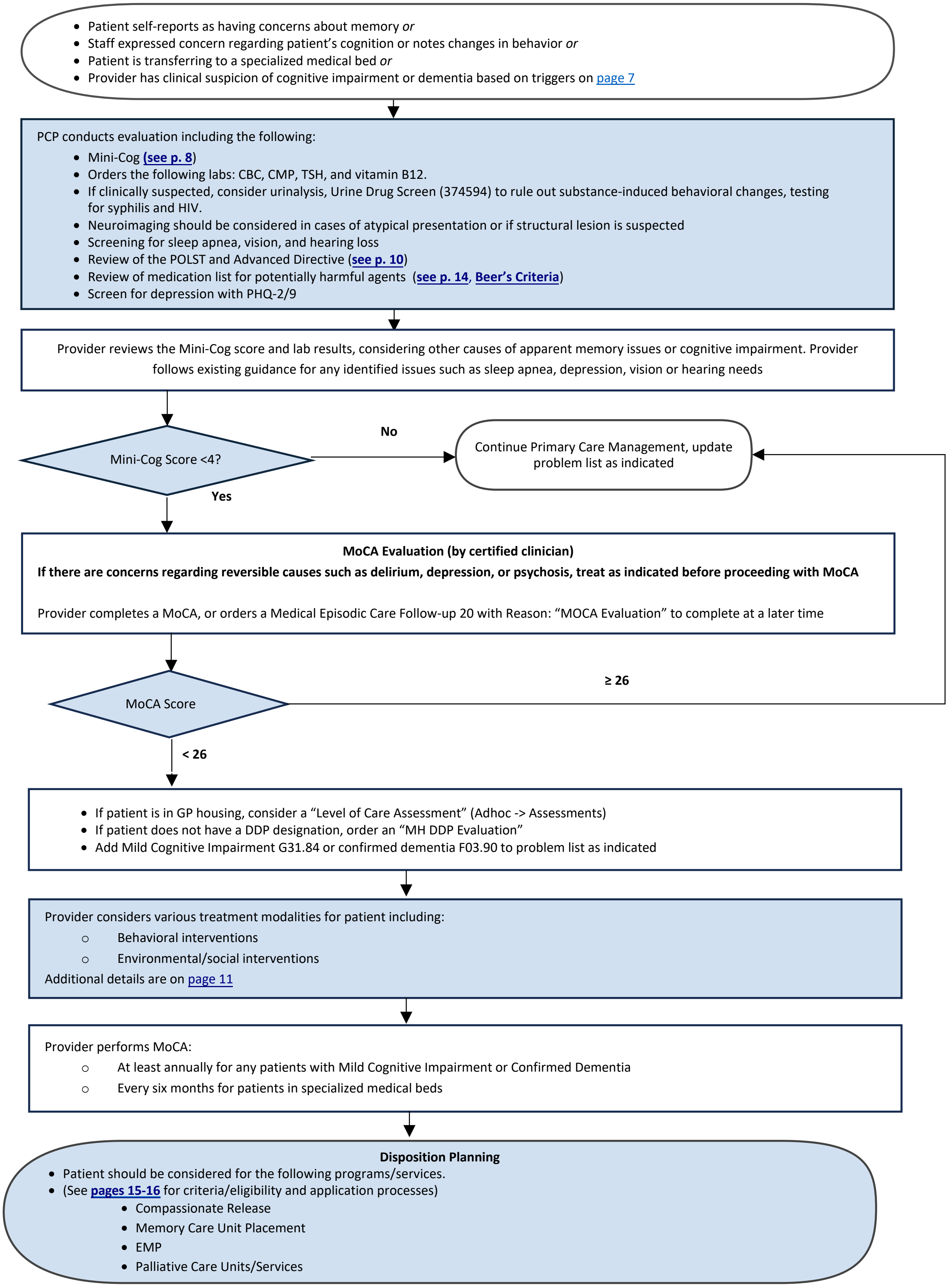
The three components of treatment planning:

- **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 ensuring appropriate level of care to support activities of daily living, behavioral and safety supports, and assigning a surrogate decision maker.
- Referral to designated housing units may be considered as applicable (details on pages 15-16)
- **Medical interventions** may delay disease progression, but any possible marginal benefit should be weighed against side 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 a 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 may be indicated to assess progression of disease and cognitive impairment.

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



- Patient self-reports as having concerns about memory *or*
- Staff expressed concern regarding patient's cognition or notes changes in behavior *or*
- Patient is transferring to a specialized medical bed *or*
- Provider has clinical suspicion of cognitive impairment or dementia based on triggers on page 7

PCP conducts evaluation including the following:

- Mini-Cog **(see p. 8**)
- Orders the following labs: CBC, CMP, TSH, and vitamin B12.
- If clinically suspected, consider urinalysis, Urine Drug Screen (374594) to rule out substance-induced behavioral changes, testing for syphilis and HIV.
- Neuroimaging should be considered in cases of atypical presentation or if structural lesion is suspected
- Screening for sleep apnea, vision, and hearing loss
- Review of the POLST and Advanced Directive (**see p. 10**)
- Review of medication list for potentially harmful agents (**see p. 14**, **Beer's Criteria**)
- Screen for depression with PHQ-2/9

Provider reviews the Mini-Cog score and lab results, considering other causes of apparent memory issues or cognitive impairment. Provider follows existing guidance for any identified issues such as sleep apnea, depression, vision or hearing needs

Mini-Cog Score <4?

No

Continue Primary Care Management, update problem list as indicated

Yes

MoCA Evaluation (by certified clinician)

If there are concerns regarding reversible causes such as delirium, depression, or psychosis, treat as indicated before proceeding with MoCA

Provider completes a MoCA, or orders a Medical Episodic Care Follow-up 20 with Reason: "MOCA Evaluation" to complete at a later time

MoCA Score

≥ 26

< 26

- If patient is in GP housing, consider a "Level of Care Assessment" (Adhoc -> Assessments)
- If patient does not have a DDP designation, order an "MH DDP Evaluation"
- Add Mild Cognitive Impairment G31.84 or confirmed dementia F03.90 to problem list as indicated

Provider considers various treatment modalities for patient including:

- Behavioral interventions
- Environmental/social interventions

Additional details are on page 11

Provider performs MoCA:

- At least annually for any patients with Mild Cognitive Impairment or Confirmed Dementia
- Every six months for patients in specialized medical beds

Disposition Planning

- Patient should be considered for the following programs/services.
- (See **pages 15-16** for criteria/eligibility and application processes)
  - Compassionate Release
  - Memory Care Unit Placement
  - EMP
  - Palliative Care Units/Services

DEFINITIONS

Mild cognitive impairment is characterized by a loss or impartment 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 , 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. Stages 1-3 are considered "pre-dementia" in which a patient may experience no to mild cognitive deficits. They remain independent and may be able to live in a general population setting.

Stages 4 and 5 are considered early to moderate dementia in which a may be physically independent, but may require assistance including supervision and prompting. These patients typically require some degree of supportive housing (e.g., 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 of daily living (ADLs). These patients are typically housed in a CTC setting.

	STAGES OF DEMENTIA	FUNCTIONAL CHARACTERISTICS
Pre-Dementia	1 – No Cognitive Decline	• Normal
	2 – Age Associated Memory Impairment	• Occasional lapses in memory (no objective evidence on testing)
	3 – Mild Cognitive Impairment	Clear Cognitive problems manifest: • 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 • 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. • 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. • 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	• 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. Cognitive impairment is underdiagnosed in the correctional setting, so have a low threshold to screen.

RISK FACTORS FOR COGNITIVE IMPAIRMENT

Patients with MCI have a 10-15% chance of developing dementia per year. Alzheimer's Disease is more common with age with 3% of people between 65-74 having the diagnosis and 32% of people 85 or older. This further increased 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:

- Social Isolation, Physical Inactivity
  - Consider offering programs emphasizing physical activities for patients at risk of developing cognitive impairment
- Intellectual and/or developmental disabilities (see below)
- Tobacco Use/Exposure
  - Screen for tobacco use
  - Consider offering counseling to avoid tobacco use/exposure
- Depressive Symptoms
- Heart Disease
- Obstructive Sleep Apnea (OSA)
- HTN
- Gait Disorders
- Diabetes

TRIGGERS TO SCREEN FOR COGNITIVE IMPAIRMENT OR DEMENTIA

Generally, early signs of dementia include increased frequency of confusion or challenges with their surroundings. 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
- Makes other problems such as pain much harder to assess and treat
- Because symptoms may fluctuate, may need to assess repeatedly over time to detect changes.

While assessing for possible depression, providers can use the PHQ-2/9 Ad Hoc Form. 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

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 problem list should be updated accordingly.
- 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 of 4 or 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 less than 3 is considered an abnormal test (0-2), but for greater sensitivity in the correctional population we recommend a follow up test on those with a score < 4.
    - ⇒ Providers should order a Medical Episodic Care Follow-up 20 with Reason: "MoCA Evaluation"

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 reports concern 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 B on page 20.)

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 15-16).
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 Mild Cognitive Impairment [G31.84])

DEVELOPMENTAL DISABILITIES PROGRAM (DDP) REFERRAL AND LOC ASSESSMENT

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

- If the patient is in GP housing, an LOC 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). Patients in specialized medical beds are expected to have their adaptive support needs met within their housing.
- 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:
  - ⇒ N/A—DDP evaluation not needed; indicates a condemned patient who has signed an Atkin's waiver
  - ⇒ Blank (no DDP designation listed) – Patient is eligible for screening
  - ⇒ NCF – Adequate Cognitive Functioning
  - ⇒ NDD – No Adaptive Support Needs
  - ⇒ DD1 – Mild Deficits
  - ⇒ DD2 – Moderate Deficits
  - ⇒ DD3 – Severe 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 changes in these levels would warrant additional assessment, therefore, it is important to speak to the DDP psychologist when considering a new diagnosis of cognitive impairment or dementia.

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 the patient is frail, seriously ill or has an expected survival of less than one year AND they retain medical-decision making capacity to do so. If not, a surrogate may complete this form.

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.

EVALUATION

When evaluating for cognitive impairment it is important to order the appropriate labs and imaging as well as rule out other health conditions such as delirium or depression:

- Consider the following labs: CBC, CMP, TSH, and vitamin B12. If high suspicion, add syphilis and HIV testing.
- Brain imaging should be considered in atypical presentation (e.g., onset <65, rapid onset or progression, other dx (HIV, cancer), head injury, anticoagulation or finding suggestive of structural or reversible etiology (e.g., NPH)
- Consider OSA or other sleep disturbances
- Assess any vision or hearing problems
- Screen for depression using PHQ-2/9 power plan
- Screen for SUD
- Review medications to rule out drug side effects

TREATMENT

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 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 CDCRCCHCSPalliativeCare@cdcr.ca.gov.

Treatment and care should be provided as per the person's Advance 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 and 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 Aid 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 17). 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 (e.g., 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)	• 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. • 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. ***When to consider AD***: *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.*
Vascular (multi-infarct) Dementia	• 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. ○ 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. Many people have a mixed picture of AD and vascular dementia. • Degree of findings on MRI does not necessarily correlate to degree of cognitive impairment. ***When to consider vascular dementia:*** *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.*
Chronic Traumatic Encephalopathy (CTE)	• 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 a specific accumulation of abnormal hyperphosphorylated tau in neurons and astroglia distributed around small blood vessels. ***When to consider CTE:*** *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.*

Frontotemporal Dementia (FD)	• A common type of dementia after AD and vascular dementia (approximately 10%). • FD is a group of disorders caused by the progressive loss of nerve cells in the frontal or temporal lobes. • This is a more common cause of early-onset dementia, with an average age of onset in the sixth decade. • 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. • Imaging of the brain may reveal focal degeneration. • Patients with PPA may have degenerative changes in the areas that control speech and language. ***When to consider Frontotemporal Dementia:*** 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. ***When to consider Primary Progressive Aphasia:*** 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.
Dementia with Lewy Bodies (DLB)	• A common type of dementia after AD and vascular dementia (approximately 10%). • Prevalence of DLB increases with age. • Symptoms include fluctuating cognitive performance with intermittent confusion over minutes, hours, days or weeks. ⇒ 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 may show nonspecific atrophy and white matter lesions. ***When to consider:*** *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.*
Parkinson's Disease Dementia (PDD)	• 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. ⇒ 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. ⇒ 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 may 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. ***When to consider***: *An older patient with Parkinson's Disease who develops visual hallucinations, delusions, confusion, changes in memory, and has poor judgment.*

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 LOC 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. LOC 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, lamotrigine, 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

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 placement in a Memory Care Unit or Compassionate Release (CR) (as the length of these processes vary, patients may need to be housed in SMB as applications are being processed). More information on 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.*

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

PATIENT CONDITION		MEMORY CARE UNIT (INTERNAL)	COMPASSIONATE RELEASE
Dementia	Mild	X	
	Moderate	X	
	Severe		X
Physically Incapacitated			X
Terminal Illness			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.

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.

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.

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

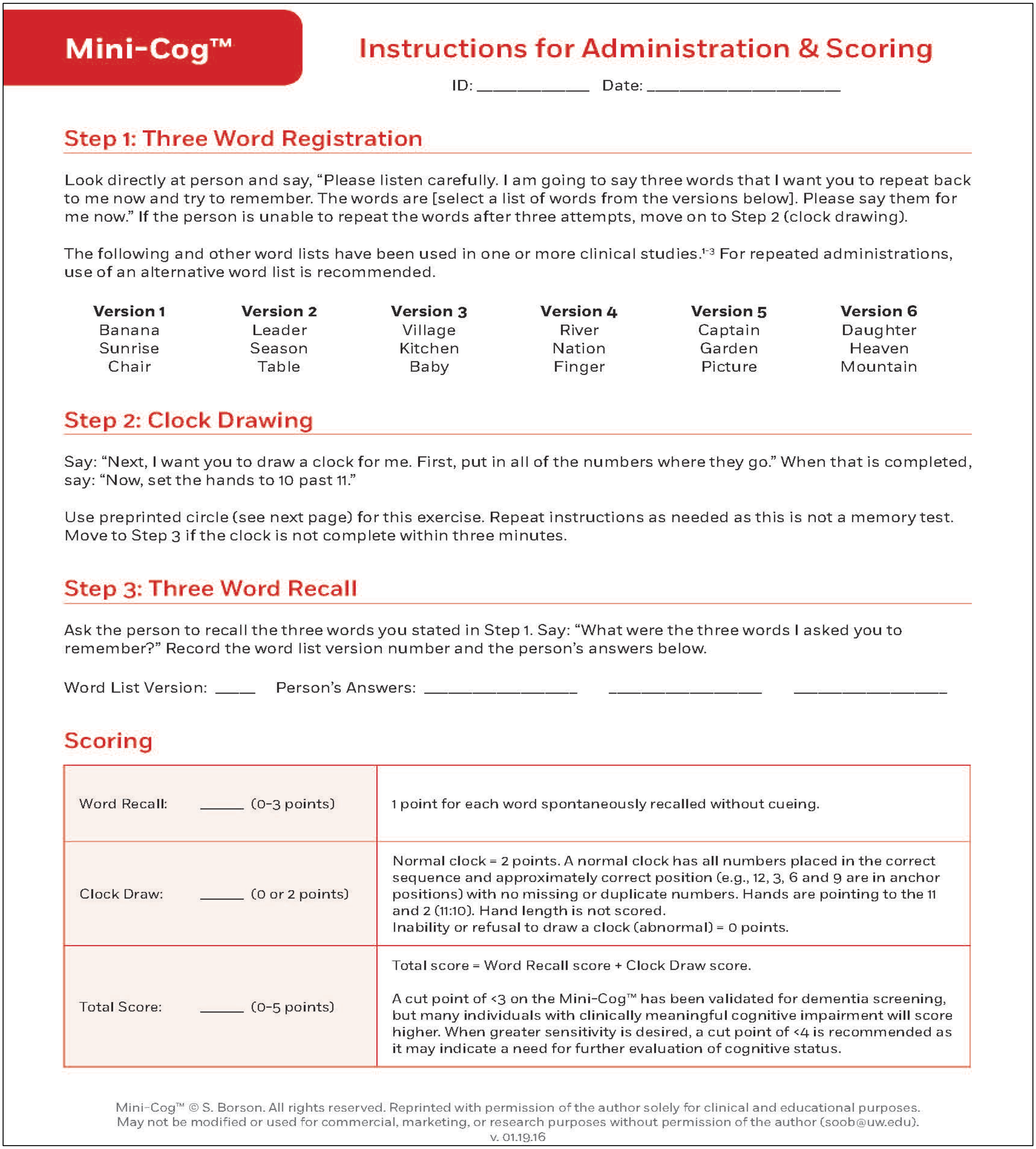
MEDICATION	DOSING*	ADVERSE EFFECTS/INTERACTIONS	COMMENTS*
CHOLINTERASE INHIBITORS			
Donepezil (Aricept)* $ Oral Tablet: **5mg, 10mg** 23mg (not to be crushed/chewed) Oral Disintegrating Tablet (ODT) **5mg, 10mg**	**Mild to Moderate AD:** Initial dose: 5mg/day at bedtime • May increase to 10 mg/day after 4-6 weeks. **Moderate to Severe AD:** Initial dose: 5 mg/day at bedtime. • May increase to 10 mg/day after 4-6 weeks. • May consider increase to 23 mg/day after 3 months	Adverse effects: • Major: AV Block, syncope, seizures • Common: Diarrhea, nausea, vomiting, dyspepsia, weight loss, insomnia, fatigue, dizziness, headache Drug interactions: • Cholinesterase inhibitors • Succinylcholine, similar neuromuscular blocking agents, or Cholinergic agonists Warnings/Precautions: • 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.	Contraindications: • 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*) $$$ Capsules: 1.5mg, 3mg 4.5 mg, 6 mg Transdermal patches: 4.6 mg/24-hour 9.5 mg/24-hour, 13.3 mg/24 hour	Initial Dose: 1.5 mg orally twice daily with food • May increase by 3 mg/day every two weeks[‡] to maximum 6 mg twice daily. Usual dose 9-12 mg divided twice daily. • If therapy interrupted three or more days, restart at lowest dose. Patch: 4.6mg/24 hr, increase after 4 weeks to 9.5mg/24 hr, consider increase after 4 more weeks to 13.3mg/24 hr • If therapy interrupted ≥ 3 days, restart at same or lower strength patch. [‡] for Parkinson's associated dementia increase dose at 4 week intervals.	Adverse effects: • Major: Stevens-Johnson Syndrome, bradycardia, hypotension, Adams-Stokes syndrome, CNS depression may impair alertness • Common: syncope, dizziness, falling, headache, agitation, nausea, vomiting (sometimes severe), diarrhea, weight loss, abdominal pain, tremor, Insomnia, somnolence Drug interactions: • Cholinesterase inhibitors • Concomitant use with Metoclopramide, Beta—Blockers, or Cholinomimetic and Anticholinergic drugs is not recommended	Contraindications: • Caution in bradycardia or conduction abnormalities (sick sinus syndrome, left bundle branch block) • Avoid in patients with uncontrolled asthma/COPD or active peptic ulcer disease • Caution in patient <50kg, may have more severe nausea and vomiting • Caution in mild/moderate renal or hepatic impairment, BPH or bladder obstruction, or seizure disorder • Avoid with severe renal or hepatic impairment
NMDA (N-METHYL-D-ASPARTATE) GLUTAMATE ANTAGONIST			
Memantine **(Namenda®) $-$$** IR tablets: **5 mg, 10 mg** ER capsules: 7 mg, 14 mg, 21 mg, 28 mg	Initial dose: 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. ER capsule: 7 mg once daily up to target of 28 mg once daily. Wait at least 1 week between dose changes.	Adverse effects: • Major: Stevens-Johnson Syndrome • Common: Dizziness, headache, confusion, constipation, diarrhea HTN, fatigue, syncope	Contraindications: • 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) $-$$ IR & ER Tablets: 8 mg, 16 mg, 24 mg Oral Solution: 4 mg/ml	Initial Dose: IR tablet: 4 mg orally twice daily with food ER tablet: 8 mg once daily. • 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.	Adverse effects: • Major: AV Block, bradycardia, syncope, seizures, urinary obstruction • Common: Nausea, anorexia, vomiting, and diarrhea, weight loss, dizziness, headache, insomnia Drug interactions: • Ketoconazole, Erythromycin, Memantine, Cimetidine, Ranitidine, Paroxetine, Amitriptyline, Fluoxetine, Fluvoxamine, Quinidine	Contraindications: • 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

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: ______________ ______________ ______________

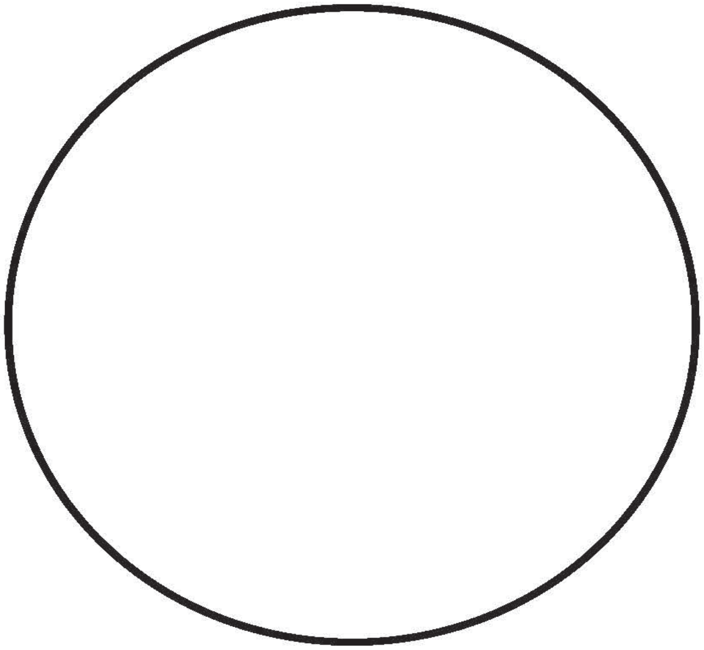
Scoring

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.

ATTACHMENT A: MINI-COG

Clock Drawing

ID: ______________ Date: ________________________



References

1. Borson S, Scanlan JM, Chen PJ et al. The Mini-Cog as a screen for dementia: Validation in a population-based sample. J Am Geriatr Soc 2003;51:1451–1454.
2. Borson S, Scanlan JM, Watanabe J et al. Improving identification of cognitive impairment in primary care. Int J Geriatr Psychiatry 2006;21: 349–355.
3. Lessig M, Scanlan J et al. Time that tells: Critical clock-drawing errors for dementia screening. Int Psychogeriatr. 2008 June; 20(3): 459–470.
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5. McCarten J, Anderson P et al. Screening for cognitive impairment in an elderly veteran population: Acceptability and results using different versions of the Mini-Cog. J Am Geriatr Soc 2011; 59: 309-213.
6. McCarten J, Anderson P et al. Finding dementia in primary care: The results of a clinical demonstration project. J Am Geriatr Soc 2012; 60: 210-217.
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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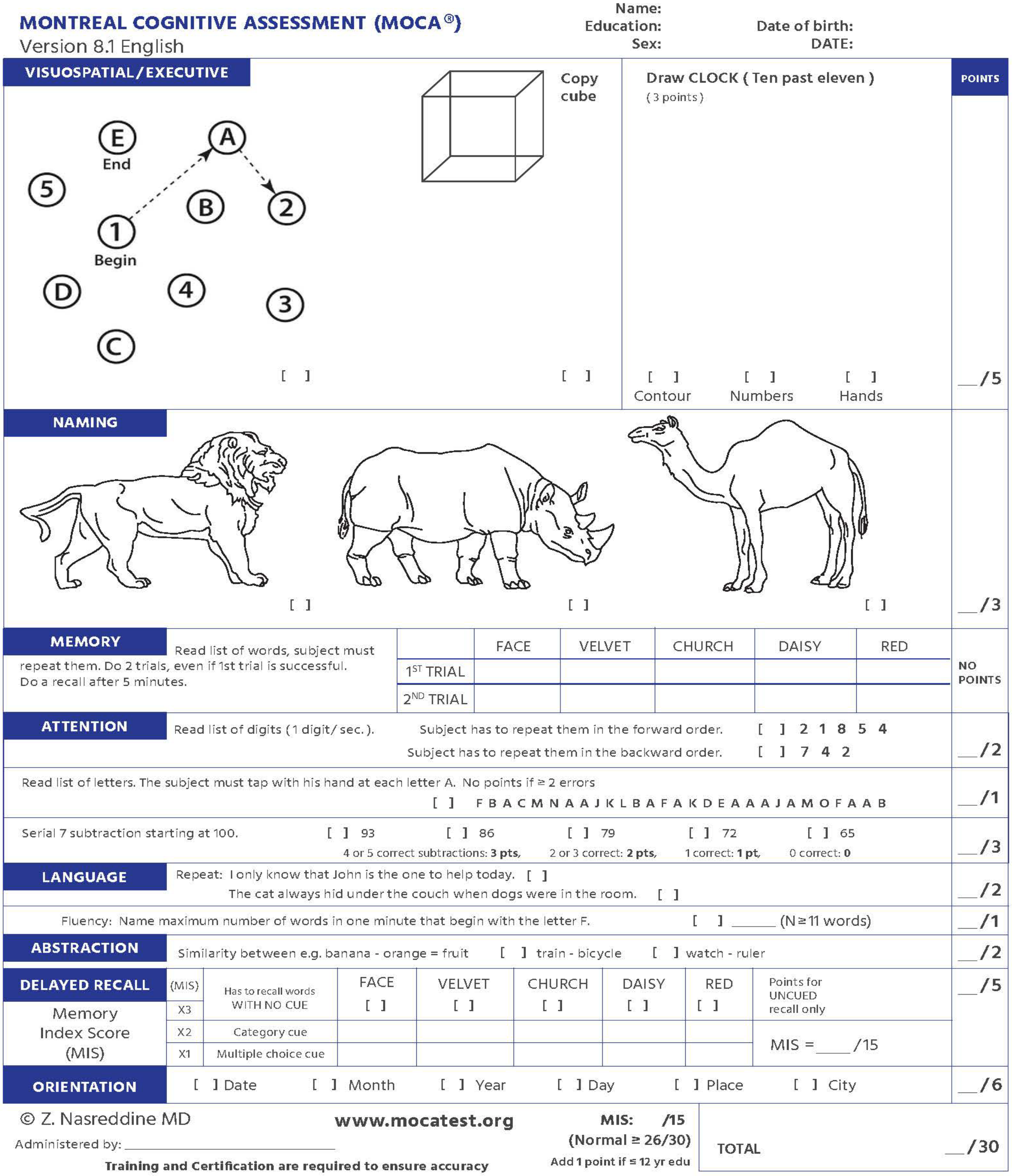
ATTACHMENT B: MONTREAL COGNITIVE ASSESSMENT

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®)
Version 8.1 English

Name:
Education:
Sex:
Date of birth:
DATE:

VISUOSPATIAL / EXECUTIVE — **POINTS**

[ ]

Copy cube

[ ]

Draw CLOCK (Ten past eleven)
(3 points)

[ ] Contour [ ] Numbers [ ] Hands

__/5

NAMING

[ ] [ ] [ ]

__/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
1ST TRIAL					
2ND TRIAL					

NO POINTS

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
4 or 5 correct subtractions: **3 pts,** 2 or 3 correct: **2 pts,** 1 correct: **1 pt,** 0 correct: **0**
__/3

LANGUAGE

Repeat: I only know that John is the one to help today. [ ]
The cat always hid under the couch when dogs were in the room. [ ]
__/2

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 UNCUED recall only	__/5
Memory Index Score (MIS)	X3								
	X2	Category cue						MIS = ____/15	
	X1	Multiple choice cue							

ORIENTATION

[ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City
__/6

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www.mocatest.org

MIS: /15
(Normal ≥ 26/30)
Add 1 point if ≤ 12 yr edu

TOTAL __/30

Administered by: ______________________

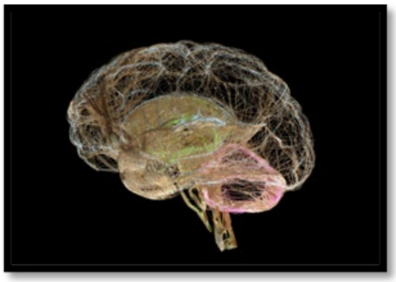
Training and Certification are required to ensure accuracy

PATIENT EDUCATION – 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:

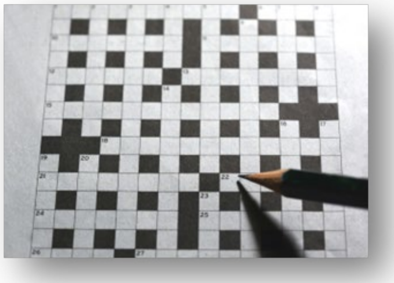
- Anger or aggression
- A person to see things that aren't there or believe things that aren't true
- Impair ability to eat, bathe, dress, or do other everyday tasks
- Loss of bladder and bowel control

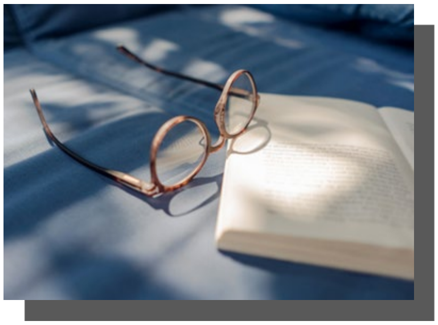
How is dementia treated? That depends on what your needs are and the type of dementia you have.

- ✓ 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





PATIENT EDUCATION – 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 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.

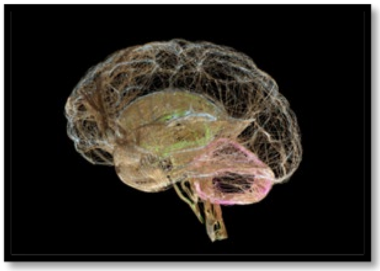
TALK TO YOUR DOCTOR OR ANY MEMBER OF YOUR HEALTH CARE TEAM

TO COMPLETE OR UPDATE YOUR ADVANCE DIRECTIVE

EDUCACIÓN PARA EL PACIENTE – 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:

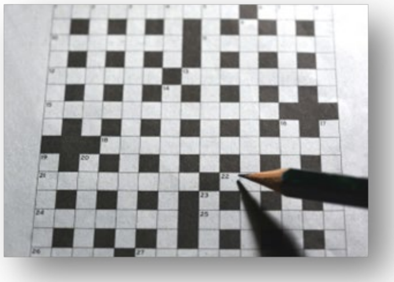
- Ira o agresividad
- Que una persona vea cosas que no existen o crea cosas que no son ciertas
- Deterioro de la capacidad para comer, bañarse, vestirse o realizar otras tareas cotidianas
- Pérdida del control de la vejiga y los esfínteres

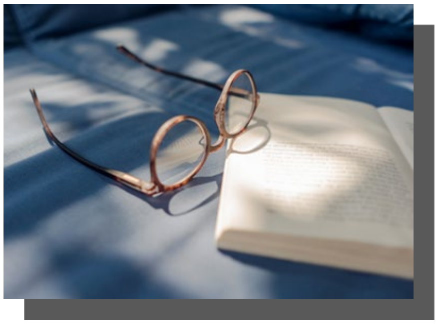
¿Cómo se trata la demencia? Depende de sus necesidades y del tipo de demencia que padezca.

- ✓ 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 ayudarle.
- ✓ 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





EDUCACIÓN PARA EL PACIENTE – LO QUÉ DEBE SABER SOBRE LA PLANIFICACIÓN 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 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.