

GUIDE

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Clinical Guidelines for Medical Respite Care: Cognition

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Introduction

Cognition is generally defined as “information-processing functions carried out by the brain,” and include aspects of thinking, such as attention, memory, executive functions, comprehension and formation of speech, calculation ability, visual perception, and praxis skills^{1,2}. Cognition is an underlying skill that contributes to a person’s ability to do everyday activities. People experiencing homelessness have higher rates of cognitive impairment and conditions causing cognitive impairment than the general population^{3,4}. Cognitive impairment from conditions such as traumatic brain injury (TBI) are more likely to occur before becoming homeless, and those with cognitive impairment are homeless longer than those who do not have cognitive impairment^{4,5}. Current findings indicate cognitive impairment, coupled with socioeconomic factors, may be a factor contributing to homelessness, and complex service delivery systems present barriers for those with a range of cognitive abilities⁴. Cognitive changes can impact one’s ability to complete more complex daily self-management activities (such as health management, self-organization, time management) and, in some cases, their ability to complete more basic daily activities¹. The impacts of cognitive impairment can be further complicated by co-occurring physical and behavioral health conditions. Additionally, ongoing issues with cognition can affect a person’s physical function, emotional/behavioral regulation, and their ability to manage their health. Studies have found a high rate of cognitive impairment (25%) among adults experiencing homelessness but note that the research likely is under-representative and rates may be even higher among unstudied^{4,6}. Due to the high rates of cognitive impairment within the population of people experiencing homelessness, medical respite programs are likely to encounter clients with cognitive impairment. **This document provides guidance for understanding cognition, how it impacts people experiencing homelessness, and strategies to support clients within the medical respite setting.**

Key Terms and Definitions

Cognition is generally defined as “information-processing functions carried out by the brain,” and includes aspects of thinking, such as attention, memory, executive functions, comprehension and formation of speech, calculation ability, visual perception, and praxis skills (the ability to conceptualize, plan, and organize movements).

Cognitive Impairment is when cognitive abilities are impaired, and a person has trouble with cognitive processing which may begin to affect the things they can do in everyday life. Cognitive impairment is a description of a symptom that manifests as a result of a variety of conditions or circumstances (CDC, 2013)

Cognitive Dysfunction is functioning that is below expected normative levels, or loss of ability in any area of cognitive functioning.

Compensatory Strategies are environmental modifications or behavioral strategies designed to bypass persistent impairment in attention, memory, executive function, and/or other cognitive skills as a means to achieve desired goals. These strategies build on the strengths and skills of the individual and can more immediately support a person in completing day to day tasks. Examples of compensatory strategies include things such as planners, calendar apps/phone calendars, alarms or reminders, organizing personal items ahead of time, etc.

Harm Reduction is a philosophical approach to medical care that extends beyond substance use, and, in general, establishes individual agency and self-determination as central to any health intervention or efforts towards well-being. Harm reduction approaches call for the non-judgmental, non-coercive provision of services and resources to people experiencing homelessness to assist people in reducing harms related to chronic health conditions or health behaviors. Harm reduction-based care is collaborative, provides education on available interventions, and centers the goals of the individual in care planning.

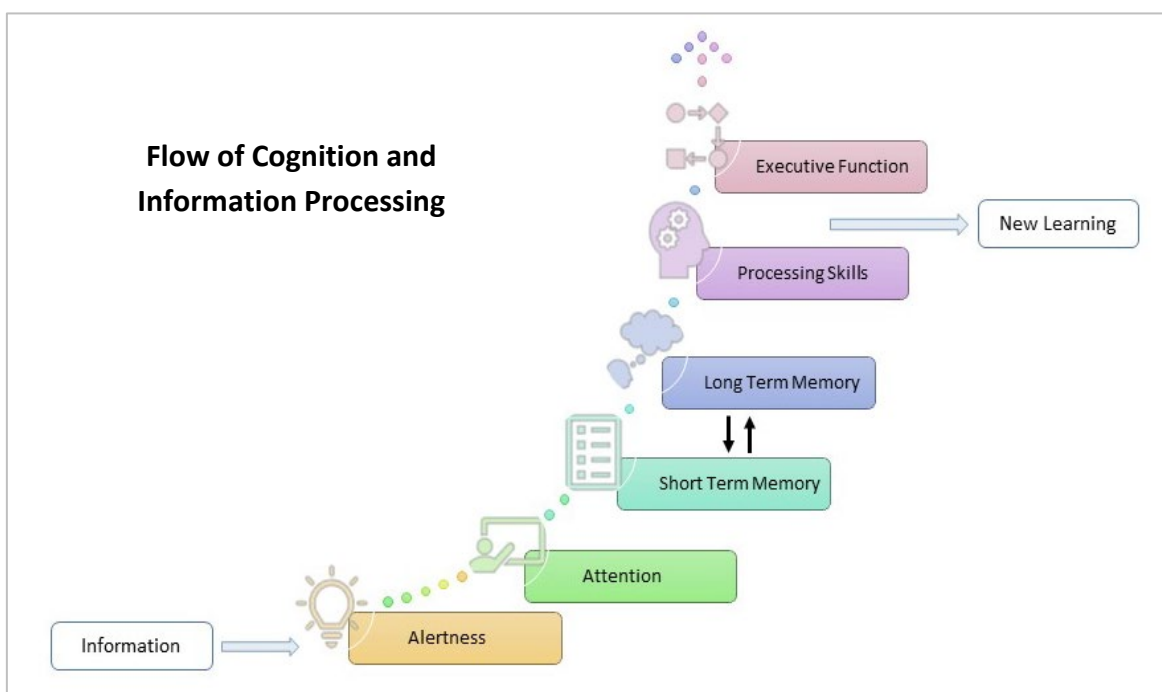
Mild Cognitive Impairment (MCI) is the stage between the expected decline in memory and thinking that happens with age and the more serious decline of dementia. MCI may include problems with memory, language, or judgment. It is important to recognize that about ¼ of people diagnosed with MCI will not progress into dementia.

Note: the recommendations and treatment for dementia are different than general cognition. Please see the [Clinical Guidelines in Medical Respite: Dementia](#) for more information.

Trauma Informed Care (TIC) is a patient-centered approach to care that recognizes the impacts of trauma and actively works to prevent re-traumatization and promote recovery. The principles of TIC are grounded in establishing a trusting relationship and a safe physical and psychological space in which to address needs.

Defining Components of Cognition:

The following terms exemplify the various components of cognition, though it is not a comprehensive list. These components are typically most observable and noticeable by the individuals themselves, especially those who are more cognitively intact. They are listed in order of complexity – thus, in order to use the more complex skills (e.g. executive functioning), the preceding skills must also be in place.



Alertness (also known as arousal) is the state of being awake, aware, attentive, and prepared to act or react.

Attention is the ability to control focus (to engage and disengage) despite a presence of internal and environmental stimuli². Attention is broken down into several [sub-types](#), and is necessary for other cognitive skills.

Memory is the ability to recall information. Memory requires the person to be able to attend to, encode, store, and then retrieve information. Like attention, memory is also broken down into several [sub-types](#)².

Processing Skills (also known as cognitive processing) is a sequence of ordered stages where sensory input or information is transformed, reduced, stored, recovered, and utilized. Processing skills are how a person uses new and stored information to operate effectively within their environment.

Executive Functioning refers to the integrative cognitive processes that determine goal-directed and purposeful behavior; executive function allows for the orderly execution of daily life functions. Executive functions include skills such as creating goals, problem solving, planning, initiating, and organizing actions, and adapting actions based on outcomes or changes in the activity².

Clinical Considerations

Background

Many factors can impact a person's cognitive functioning. These impacts may be temporary or long-standing depending on the cause. Medical conditions that can impact cognition include:

- [Traumatic brain injury](#)
- [Acquired brain injury](#)
- HIV
- [Neurological conditions](#)
- Active and/or a history of substance use
- Mental health symptoms
- Dementia
- Developmental delays
- Medical interventions
- Being treated in an intensive care unit
- Chronic conditions
- Hearing and/or vision loss
- Acute and chronic pain

Although there are a multitude of medical causes for cognitive impairment, a person's cognition is also significantly impacted or worsened by their environment. **Many environmental and circumstantial factors affect cognition, and the following are more likely to be encountered by people experiencing homelessness:**

- Homelessness
- Unstable, unsafe, or inadequate housing
- Poor nutrition/lack of access to food
- Sleep deprivation
- History of and/or current trauma
- Stress
- Low literacy

It is important to note that the impact of cognition on function will be individual for each person, based on the cause and duration of the cognitive impairment, and the life experiences the person has had⁷. It should not automatically be assumed that lower scores on cognitive screening tools mean that the person is unable to care for themselves. Often times individuals with cognitive impairment have the capacity to learn new skills, use compensatory strategies, and engage in familiar and routine activities. The existing environmental factors can significantly exacerbate cognitive difficulties that might be caused by a medical condition. Some cognitive issues may also be resolved once the person is within a safe environment and able to get adequate sleep and meals, or with the treatment and resolution of a medical condition.

Medical respite care can be an opportunity to:

- Identify underlying cognitive impairment,
- Understand how cognitive status is impacting a person's ability to manage self and health,
- Identify strategies to support someone experiencing cognitive impairment, and
- Move towards housing to support overall health.

Assessment

In all assessment processes it is important to implement a [trauma-informed](#) and harm reduction-based approach, recognizing that people may not be ready to share their entire health history in the first encounter. A good history is key to creating an appropriate plan of care and can be built over several visits. The principles that guide trauma-informed care and harm reduction align with recommended best-practices for engaging with those with cognitive impairment. A comprehensive assessment for a person with cognitive impairment includes the following:

Complete History and Physical, which includes:

- Gather medical history as available and current prescribed medications
 - Assess if any medications, or combinations of medications, could be affecting alertness/drowsiness
- Monitor for signs and symptoms of alcohol, benzodiazepine, or [opiate](#) withdrawal
- Family history
- History of recent hospitalizations or medical interventions
- Assess for behavioral health (BH) needs by incorporating screening tools ([PHQ9](#), [GAD-7](#), [DAST-10](#); [ASI](#); [SBIRT](#))
 - When possible, assess for a history of, and for potential current, substance use
- Assess for possible co-occurring neurological conditions (e.g., history of CVA, epilepsy)
- [Screen for a history of traumatic brain injury](#) (recent and lifetime)
- Assess for current [pain](#) level(s) and evaluate if treatment of pain is adequate
- Assess for [chronic conditions](#), and if conditions are managed
- Assess for [history](#) and [risk](#) of falls

Assess Cognitive Status:

- Assess current cognitive status by incorporating tools such as a [Mini-Cog](#) or [Mini Mental Status Exam ©](#)
- Assess and monitor for changes in personality or behavior
- Assess for presence of delirium

Assess for Global Cognition:

- Assess for global cognition using the [Montreal Cognitive Assessment \(MoCA\)©](#) or [St. Louis University Mental Status SLUMS](#)

Assess for factors co-occurring with or impacting cognition:

- Assess for [vision](#) and [vision changes](#)
- Assess for hearing/[hearing loss](#)
- Assess access to adequate nutrition and hydration
- Assess living conditions, current and where the person may discharge to, and supports available
- Assess for [history of, or current, interpersonal violence and/or elder abuse](#)

Assess for impact of cognition on priority functional activities:

- Use motivational interviewing to identify priorities and concerns related to cognition and health
- Assess [literacy](#), [health literacy](#), and [calculation skills](#)
- [Assess ability to follow medication regimens](#) and instructions, and identify potential side effects of medications
- Assess impact on [daily function](#)
- [Assess ability to perform activities of daily living \(ADL\) independently](#) and instrumental activities of daily living (IADL) (this may require referral to occupational therapy for full evaluation)
- Assess ability to communicate need and understanding of verbal and written information (this may require referral to speech and language pathology for full evaluation)

Care Plan and Management

Strategies and treatment plans implemented should be person-centered, collaborative, and based on priorities and needs identified during the assessment process. As noted, interventions should be trauma-informed and integrate harm reduction principles to minimize risks and improve access to care. Within the medical respite setting, compensatory strategies will be most effective to support patients in learning and using new skills.

Person Specific Strategies

Individual strategies for supporting and managing cognitive impairments include:

- Use strategies to minimize stress and increase relaxation before completing more cognitively challenging tasks (e.g., deep breathing, body-scanning/relaxation).
- Ensure the patient has adequate time for self-expression to compensate for communication or language difficulties and avoid rushing during clinical/staff encounters if possible.
- Identify individual preferences for communication and simplify information shared.
- Identify personal goals and link activities and tasks to the patient’s goals.
- Check for comprehension and understanding of instructions using the “teach-back” method, or have the person demonstrate or summarize instructions.
- Provide [medication education](#) and [simplified instructions](#) for taking medications, complete medication reconciliation, and simplify medication regimens when possible.
- Establish with ongoing community supports to [follow medication instructions as needed](#).
 - Minimize prescribing medications that may impact cognition/alertness and adjust medication regimens if the patient begins experiencing cognitive side effects (if possible).
- Support patients in identifying and using strategies to compensate for decreased cognition, such as:
 - Use alarms/timers to remember to do priority activities (e.g., take medicine).
 - Use calendars, planners, or calendar apps to organize time and appointments.
 - Write out a list of priorities/tasks to complete, support the patient in identifying what must be done first, and create a schedule to accomplish identified tasks.
- Provide (multiple) opportunities to practice multi-step or complex activities and offer feedback and support from providers/staff as needed.
 - Break down activities into smaller steps.
 - Give step by step instructions as needed.
 - Support by providing written or picture instructions as appropriate.
- Assist patient in problem solving and identifying solutions to problems.

Environmental Strategies

- Clearly communicate program expectations and/or changes in programming.
- Provide clear signage around the medical respite program to ease wayfinding and orient patients to the space. Signage should be easy to locate and within general eyesight.
- Provide [written instructions](#), reminders, and use consistent schedules to support patients with decreased memory and attention due to cognitive changes.
- Provide visual cues to orient to date and time, such as personal calendars, clocks, whiteboards, or bulletin boards that list the day of the week, date, etc.
- Provide supplies to help clients organize and track information, such as personal whiteboards, calendar/pocket planners, notebooks, etc.
- Provide checklists and schedules of medical respite program or building activities for clients to easily reference.
- Provide adequate space and supplies to organize personal belongings safely.
- Provide quiet or less distracting spaces to complete more complex activities.
- Allow adequate staff time to support patients who need support in identifying, practicing, and using compensatory strategies.
- Use strategies to create a [trauma-informed environment](#), which facilitates access to quiet/personal spaces and increases safety.

Referrals

- Audiology: consider referring if hearing loss is detected or suspected.
- Behavioral health: to address impacts of changes in function related to cognition, or to address mental health symptoms or substance/alcohol use.
- Gerontology or Geriatric Psychiatry: for assessment and referral of conditions related to aging, especially if experiencing new-onset cognitive changes. Consider referring individuals if they are presenting with conditions related to aging even if younger than 60.
- Neurology: for diagnosis or assessment of neurological conditions.
- Neuropsychiatry: for assessment and diagnosis of cognition/cognitive function.
- Occupational Therapy: for evaluation to identify underlying factors and impact of cognition and environmental barriers on ADL and IADL performance.
- Ophthalmology: if vision loss is detected or suspected.
- Physical Therapy: for evaluation to identify underlying physiological factors that may be impacted along with cognition, or if co-occurring conditions are affecting mobility or gait.
- Speech and Language Therapy: consider referring for evaluation of communication, comprehension, and language, which may be affected by cognition.

Discharge Planning

Patients with cognitive impairment may be ready for discharge from medical respite care when:

- Conditions that were the primary reason for referral to the medical respite program are stable.
- The patient is able to independently manage medication regimens or has support to manage medications.
- The patient is able to use compensatory strategies to manage health and other priority activities.
- The patient is connected with and able to independently go to specialist appointments or supports are in place to facilitate attending appointments.
- The patient has completed interventions with PT, OT, or speech therapy or is able to attend appointments independently.
- The patient has completed needed diagnostic and follow-up testing.
- The patient has been connected with ongoing community supports for people with cognitive impairment (as appropriate), such as intensive case management or local [Home and Community Based Services](#).
- The patient is transitioning directly into a [higher level of care](#) as determined by need.

Advanced Training and Advocacy

- For a more comprehensive overview of strategies to support cognition within medical respite, please view the webinar [Addressing Cognition in Medical Respite Programs](#).
- For a more comprehensive overview of addressing brain injury and cognition in people experiencing homelessness, please review [Adapted Clinical Guidelines for Traumatic Brain Injury](#).
- For more information on implementing health literacy within the medical respite program, please visit the [AHRQ Health Literacy Toolkit](#).
- Complete training on [trauma-informed de-escalation and crisis prevention](#).
- Advocate for simplification of housing and resource systems and/or inclusion of advocates that can be more easily navigated by those with cognitive impairment.
- Advocate for accessible and affordable housing and community-based supports for individuals with cognitive impairment and/or mobility needs to live safely within the community.
- Advocate for individuals to more easily access higher [levels of care](#) when needed.

Case Example 1

Background: Adrian (they/them/theirs) is a 27-year-old who frequently seeks out care in the emergency department (ED) of their local hospital, often for pain and symptoms related to a chronic kidney condition. They have been seen in the ED multiple times in the past month and have not been able to make connections to community-based health care. Adrian has been homeless since the age of 18 when they transitioned out of foster care and has stayed with various acquaintances and shelters since. Adrian has also been diagnosed with depression, borderline personality disorder, and has a significant trauma history. Their medical records include labels such as “non-compliant,” “challenging,” and “emotionally labile.” After their most recent admission into hospital, due to deterioration of kidney function, Adrian was referred to the medical respite program for more intensive support, management of their health, and to prevent an immediate return to the ED.

After admission to the medical respite program, Adrian connected well with their intake team and expressed concerns for their health, pain related to kidneys, and concerns with housing status. However, Adrian demonstrated limited knowledge of medical recommendations for management of their condition. Despite connecting well with the team, Adrian also had several episodes of yelling at staff, often in the context of being reminded of rules or schedules. When approached by their case manager following the episodes, Adrian stated, “no one ever told me when I should do that” and reported feeling like the rules were not shared with them by staff.

Assessment: Due to Adrian’s demonstrated difficulty with remembering health information and instructions from the medical respite staff, the team decided to investigate their cognitive skills to better support Adrian and their care plan. The RN administered the [MediCog](#) assessment, which showed decreased recall and ability to read and follow medication instructions. Using the [Newest Vital Sign tool](#) for health literacy, the RN confirmed that health literacy and calculation skills were also decreased, and likely contributing to the difficulty of completing health management tasks. Adrian’s case manager used motivational interviewing to ask about cognitive concerns. In this conversation Adrian revealed “I struggled in school and got special support. I think for ADD or because I have trouble reading and doing math.” Adrian also identified that “my long-term memory is good, I remember a lot of the bad stuff, but I can’t remember the important things” and that when trying to do more complicated tasks, such as going to a new doctor, “I get confused so then I just give up or get frustrated.” Adrian is not currently engaged in mental health care, but is interested, noting they were discharged from their last therapist due to missing multiple appointments.

Intervention: Adrian was referred for mental health and primary care at the Health Care for the Homeless clinic (HCH), and a nephrologist. The medical respite community health worker (CHW) went with them to all initial, and one follow-up, appointment to help navigate processes, complete paperwork, and increase comfort with the providers. The RN provided education to Adrian daily on health management, compensating for their cognition by providing step by step instructions and allowing them to practice each step until independent. The RN also worked with the PCP to request blister packs for medications and worked with Adrian to use their phone to identify the day of the week and set reminders to take medication. Overall, the medical respite team used trauma-informed strategies to give Adrian time to process and follow-through on instructions and offered assistance for reading/writing/math. Adrian was educated on the HCH walk-in hours for care in case they missed their appointments. The PCP also put in a referral for a neuropsych evaluation, and the case manager referred Adrian to a SOAR team to apply for disability benefits.

Outcomes: Adrian’s kidney function was stabilized while in the program, and they increased utilization of walk-in hours at HCH instead of ED. They were able to continue with their mental health services, and they worked with the HCH CHW to attend their specialist appointments and neuropsych evaluation, which confirmed decreased cognitive skills, learning disabilities, and a diagnosis of developmental delay. Adrian was awarded SSI and referred to a program that supports individuals with developmental delays through the state, which would provide supported housing and case management.

Case Example 2

Background: Charlie (he/him/his) is 56 years old and is currently hospitalized for severe Covid-19, which included respiratory failure and intubation while in the ICU for several days. Charlie slept outside throughout the winter after being asked to leave the local shelter due to ongoing substance and alcohol use. Once his condition was more stable, Charlie was referred to the medical respite program for continued support, stabilization, and monitoring of his lung function. Charlie has a long-standing history of polysubstance use, most recently drinking 1/5 L of liquor daily, along with heroin and fentanyl use. Charlie also has a history of several overdoses in the past few years, most of which were addressed with Naloxone, administered by a friend or shelter worker.

Initially at admission to the medical respite program, Charlie presented with fatigue and decreased endurance, but he was able to manage all self-care needs. He required reminders to take his medications daily, and often asked staff when meals would be served, and who his case manager was. However, after 4 days at the program, Charlie demonstrated significant declines. He stopped bathing and grooming and appeared to not finish getting dressed. He could not remember why he needed medications, left personal belongings sitting throughout the facility, and referred to the program by the name of the shelter he most recently stayed at. Staff expressed concern about his decompensation and his need for extra support. Staff also questioned whether or not this change was due to intoxication and increased substance use.

Assessment: Responding to the concerns of staff, the medical team sought to determine the potential causes of Charlie's cognitive changes and did not want to attribute the change to substance use without further investigation. The medical respite nurse practitioner administered the [Mini Mental Status Exam ©](#) (MMSE) and compared the results to the MMSE completed at the hospital right before Charlie's discharge. The findings indicated a significant and concerning decline in cognitive status. Due to concerns about substance use and history of overdose, the staff increased support and monitoring by checking in on Charlie every couple of hours and offering support for tasks as needed. The NP further evaluated Charlie, and due to concerns of medical complications, arranged for Charlie to be seen in the ED. There, it was determined that Charlie had developed pneumonia, and the infection was likely causing his cognitive changes, among other symptoms. Charlie was treated in the hospital for 3 days, and then returned to the medical respite program to complete his treatment and care.

Intervention: Once he returned the medical respite program, Charlie was able to resume all self-care activities independently. To help compensate for ongoing memory difficulties, his providers worked with him to set-up reminders on his phone to take his medications daily. He was also provided with a simplified schedule of program activities, which he kept by his bed. Charlie was agreeable to a referral to a program for medication assisted treatment (MAT), as continued substance use would further complicate his recovery. However, he declined any treatment for alcohol use. Due to Charlie's high risk and past difficulty with staying at the shelter, he stayed at the medical respite program until he completed his full treatment. During this time Charlie was also connected with his local Coordinated Entry provider who began the housing application process. Although more stable, he continued to have cognitive challenges, which were documented by the team to support an SSI application.

Outcomes: At discharge, Charlie transitioned into a low-barrier winter shelter, where he was not allowed to use/drink onsite but would not be asked to leave if he was intoxicated. Charlie preferred to continue to attend a methadone clinic daily for MAT, noting that "it helps me that I just know I have to go every day." Charlie continued to work with his community case manager to navigate the SSI application process and stay connected for potential housing options.

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