

COGNITIVE DISABILITY AND REIMBURSEMENT FOR REHABILITATION AND PSYCHIATRY

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Neither psychiatry nor rehabilitation has been able to develop acceptable criteria for diagnostic-related groups. The difficulty in both instances may be related to an inability to clearly state intake criteria as well as the functional outcomes produced by different levels of care. The need for care is largely determined by the functional difficulties a person has in managing their own affairs. Competency to manage one's own affairs is based on cognitive ability.¹ The degree of cognitive difficulty in doing everyday activities as well as the person's ability to learn to overcome these difficulties are important intake criteria. When further improvement in competency is not expected, discharge should occur. What is required is a measure that is sensitive to important changes in the person's ability to do daily activities. Just as important, when residual cognitive disabilities exist, is a measure that predicts the social assistance required to protect the patient's safety.

While post-acute health care needs and costs are probably more heavily influenced by the individual's remaining cognitive ability/disability, more is known about physical capacity for the obvious reason that it is much easier to measure. Rehabilitation therapists have recognized the need for global descriptions of behavior patterns and two measures of cognitive disability are in common use.

A large portion of the people who receive rehabilitation services do so as a result of brain pathology. Injury or surgery of the brain is followed by a period of recovery wherein improvement in cognitive ability is expected and can be monitored. As the recovery slows down, therapists teach people how to live with any residual disabilities. When patients are unable to learn, therapists teach other caregivers how to protect the patient from further harm. The purposes of case management, quality assurance, and utilization review may all be based on an objective measure of the rate of recovery and the patient's ability to learn how to live with a residual cognitive/physical disability.

The need for psychiatric services is often signaled by a decline in a person's ability to manage their own affairs. Effective psychiatric treatment improves the person's ability to function, which can also be monitored by the cognitive levels. Guidelines for using the cognitive levels with depression exist (Blue Cross of California, 1991). These guidelines are for occupational therapy services within the context of Medicare Part B.² The guidelines are consistent with the description of rehabilitation services described above. These occupational therapy guidelines may serve as stepping stones for establishing consistent measures of treatment effectiveness in psychiatry and rehabilitation.

The global measure of behavior patterns suggested here differs from familiar psychological tests. Most psychological tests measure the parts of thought, such as memory, perception, vocabulary, arithmetic, etc. Competency to manage one's own affairs is based on a general pattern of behavior. The quality of behavior is measured by a global evaluation of the individual's ability to process new and old information. The behavior pattern is associated with the capacity to adjust to a disability, understand risks, and follow safety precautions.

The measure suggested can be associated with any diagnosis (psychiatric, neurological, or systemic) that reduces mental capacity. The measure is driven by a reduction in the quality of activity performance that increases risks for unfavorable events.

Behavior patterns are used to draw inferences about the individual's ability to adjust, understand, and learn. There are, of course, many problems associated with trying to draw inferences from observations of behavior. The way the brain is operating as a total unit to do activities is a simple idea that can get very complicated. Some of the benefits of struggling with these difficulties are suggested.

The cognitive levels suggested here measure the person's ability to function. Most measures of function have short scales heavily weighted by physical disabilities. The most expensive disabilities are cognitive because the assistance needed must be provided by another person, for as much as 24 hours a day. As the cognitive disability decreases, care may be reduced to checking up on the person with a mild disability as infrequently as once a day. A scale that detects differences in the level of care required could be of benefit to the insurance industry.

Therapists working with traumatic brain injuries often use the eight Rancho Cognitive Levels.³ A study reported in this journal found a relationship between a moderate cognitive disability and higher medical costs. Paradoxically, more severe and milder cognitive disabilities were associated with lower medical costs.⁴ These costs are as expected by therapists because people with moderate cognitive disabilities take the longest to learn how to adjust to a disability. People with a mild disability learn faster. People with a severe disability do not learn; the only rehabilitation service provided may be assistance with positioning the patient. The same pattern of costs may be found with other populations. While widely used in treatment of traumatic brain injured, no standardized measures have been developed for the Rancho Cognitive Levels.

The Allen Cognitive Levels are theoretically related to the Rancho levels, with the advantage of a history of instrument

development.⁵⁻¹¹ Most of this work has been done with psychiatric and geropsychiatric patients, and clinical use is most common with these populations. The original scale contained six cognitive levels.^{5,12-19} A short scale may be adequate for overall costs and utilization, but medical review and case management are going to require more sensitive measures. The six cognitive levels have been expanded into a 52-point scale

that makes finer distinctions in the quality of performance.²⁰

The range of functional disability produced by brain pathology makes it difficult to use diagnostic categories to determine the length and level of care required. A more direct measure of functional disability may be helpful. Cognitive disability related groups are suggested as an additional approach to establishing reimbursement policies in psychiatry and rehabilitation.

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See Table on following page.

COGNITION AND LEVEL OF CARE

Level 0: Coma

0.8 Generalized Reflexive Actions

Level 1: Awareness

1.0 Withdrawing from Noxious Stimuli
24-hour nursing care for artificial feeding and turning to maintain skin integrity.

1.2 Responding to Stimulation
24-hour nursing care as at 1.0

1.4 Locating Stimulation
24-hour nursing care to feed regular diet and initiate rolling for skin care.

1.6 Rolling in Bed
24-hour nursing care to place cup and spoon in hand and sustain eating, establish route for voiding, and bathe.

Level 2: Gross Body Movements

2.0 Overcoming Gravity
24-hour nursing care to transfer from bed to chair, provide food, and do bathroom activities.

2.2 Righting Reaction
24-hour nursing care to prevent standing if unable to weight bear, transfer on sliding board or a pivot transfer, provide food, and do bathroom activities.

2.4 Aimless Walking
24-hour nursing care to initiate and assist with all activities of daily living and prevent wandering.

2.6 Directed Walking
24-hour nursing care to restrict walking to even surfaces in safe locations such as a room, building, or yard.

2.8 Grabbing
24-hour nursing care to stabilize grab bars, rails, furniture, point out stairs, edge of bathtub, provide food, and bathe.

Level 3: Manual Actions

3.0 Grasping Objects
24-hour nursing care to elicit habitual motions for activities of daily living and to complete motions for an acceptable level of hygiene.

3.2 Distinguishing Objects
24-hour nursing care to place objects needed to do the activities of daily living in front of the patient and to complete motions for an acceptable level of hygiene.

3.4 Sustaining Actions on Objects
24-hour supervision to place objects needed to do activities of daily living in front of the patient and sequence the patient through the necessary steps to achieve acceptable results. One person can supervise three patient's at a time.

3.6 Noting Effects on Objects
24-supervision to provide the materials needed for activities of daily living, to remind the patient to finish necessary steps, to check results, and to remove access to dangerous objects.

3.8 Using All Objects
24-hour supervision to get materials out that are needed to do activities of daily living, to check results, and to remove dangerous objects.

Level 4: Familiar Activity

4.0 Sequencing
24-hour supervision to remove dangerous objects and solve any problems occurring through minor changes in routine. May fix self a cold meal or snack and make small purchases in the neighborhood.

4.2 Differentiating Features
24-hour supervision to remove dangerous objects outside of the visual field and to solve any problems arising from minor changes in the environment. Patient may spend a daily allowance, walk to familiar locations in the neighborhood, or follow a simple, familiar bus route.

4.4 Completing Goal
Lives with someone who does a daily check on the environment and removes any safety hazards and solves any new problems. May be alone for part of the day with procedure for obtaining help by phone or from a neighbor. May have a daily allowance and go to familiar places in the neighborhood.

4.6 Personalizing
May live alone with daily assistance to monitor personal safety and provide a daily allowance. Bills and other money management concerns require assistance. May require reminders to do household chores, to attend familiar community events, or to do anything in addition to daily household routine.

4.8 Rote Learning
May live alone with daily assistance to monitor safety and check problem solving methods. May get self to a regularly scheduled community activity or succeed in supportive employment with a job coach.

Level 5: Learning New Activity

5.0 Continuous Neuromuscular Adjustments
May live alone with weekly checks to monitor safety and check problem solving. May succeed in supportive employment with a job coach and get to regularly scheduled community activity.

5.2 Discriminating
May live alone with weekly checks to monitor safety and examine potentially dangerous effects of impulsive behavior. May succeed in supportive employment with a job coach and participate in community events.

5.4 Self-directed Learning
May live alone and work in a job with a wide margin of error. May not be safe in jobs with a high potential for industrial accidents.

5.6 Considering Social Standards
May respond to supervision that identifies hazards occurring as secondary effect of their actions. May be relied on to follow safety precautions consistently.

5.8 Consulting
May benefit from assistance in planning for the future. May benefit from discussion of complications such as fatigue, joint protection, functional positioning, etc.

Level 6: Planning New Activity

6.0 Planning without Objects
May consider several hypothetical plans of action and establish abstract criteria for selecting the best plan. May make plans for the future that account for risks to one's health and well-being.