RANCHO LOS AMIGOS
NATIONAL REHABILITATION CENTER

PATIENT INFORMATION

Family Guide to The Rancho Levels of Cognitive Functioning

Cognition refers to a person's thinking and memory skills. Cognitive skills include paying attention, being aware of one's surroundings, organizing, planning, following through on decisions, solving problems, judgement, reasoning, and awareness of problems. Memory skills include the ability to remember things before and after the brain injury. Because of the damage caused by a brain injury, some or all of these skills will be changed.

The Rancho Levels of Cognitive Functioning is an evaluation tool used by the rehabilitation team. The eight levels describe the patterns or stages of recovery typically seen after a brain injury. This helps the team understand and focus on the person's abilities and design an appropriate treatment program. Each person will progress at their own rate, depending on the severity of the brain damage, the location of the injury in the brain and length of time since the brain injury. Some individuals will pass through each of the eight levels, while others may progress to a certain level and fail to change to the next higher level.

It is important to remember that each person is an individual and there are many factors that need to be considered when assigning a level of cognition. There are a range of abilities within each of the levels and your family member may exhibit some or all of the behaviors listed below.

COGNITIVE LEVEL I
NO RESPONSE

A person at this level will:

- not respond to sounds, sights, touch or movement.

COGNITIVE LEVEL II
GENERALIZED RESPONSE

A person at this level will:

- begin to respond to sounds, sights, touch or movement;
- respond slowly, inconsistently, or after a delay;
- responds in the same way to what he hears, sees or feels. Responses may include chewing, sweating, breathing faster, moaning, moving, and/or increasing blood pressure.

COGNITIVE LEVEL III
LOCALIZED RESPONSE

A person at this level will:

- be awake on and off during the day;
- make more movements than before;
- react more specifically to what he sees, hears, or feels. For example, he may turn towards a sound, withdraw from pain, and attempt to watch a person move around the room;
- react slowly and inconsistently;
- begin to recognize family and friends;
- follow some simple directions such as "Look at me" or "squeeze my hand";
- begin to respond inconsistently to simple questions with "yes" and "no" head nods.

What family/friends can do at Cognitive Levels I, II, and III

- Explain to the individual what you are about to do. For example, "I'm going to move your leg."
- Talk in a normal tone of voice.
- Keep comments and questions short and simple. For example, instead of "Can you turn your head

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towards me?", say, "Look at me".

- Tell the person who you are, where he is, why he is in the hospital, and what day it is.
- Limit the number of visitors to 2-3 people at a time.
- Keep the room calm and quiet.
- Bring in favorite belongings and pictures of family members and close friends.
- Allow the person extra time to respond, but don't expect responses to be correct. Sometimes the person may not respond at all.
- Give him rest periods. He will tire easily.
- Engage him in familiar activities, such as listening to his favorite music, talking about the family and friends, reading out loud to him, watching TV, combing his hair, putting on lotion, etc.
- He may understand parts of what you are saying. Therefore, be careful what you say in front of the individual.

COGNITIVE LEVEL IV
CONFUSED AND AGITATED

A person at this level may:

- be very confused and frightened;
- not understand what he feels or what is happening around him;
- overreact to what he sees, hears, or feels by hitting, screaming, using abusive language, or thrashing about. This is because of the confusion;
- be restrained so he doesn't hurt himself;
- be highly focused on his basic needs; ie., eating, relieving pain, going back to bed, going to the bathroom, or going home;
- may not understand that people are trying to help him;
- not pay attention or be able to concentrate for a few seconds;
- have difficulty following directions;
- recognize family/friends some of the time;
- with help, be able to do simple routine activities such as feeding himself, dressing or talking.

What family/friends can do at Cognitive Level IV:

- Tell the person where he is and reassure him that he is safe.
- Bring in family pictures and personal items from home, to make him feel more comfortable.
- Allow him as much movement as is safe.
- Take him for rides in his wheelchair, with permission from nursing.
- Experiment to find familiar activities that are calming to him such as listening to music, eating, etc.
- Do not force him to do things. Instead, listen to what he wants to do and follow his lead, within safety limits.
- Since he often becomes distracted, restless, or agitated, you may need to give him breaks and change activities frequently.
- Keep the room quiet and calm. For example, turn off the TV and radio, don't talk too much and use a calm voice.
- Limit the number of visitors to 2-3 people at a time.

COGNITIVE LEVEL V
CONFUSED AND INAPPROPRIATE

A person at this level may:

- be able to pay attention for only a few minutes;
- be confused and have difficulty making sense of things outside himself;
- not know the date, where he is or why he is in the hospital;
- not be able to start or complete everyday activities, such as brushing his teeth, even when physically able. He may need step-by-step instructions;
- become overloaded and restless when tired or when there are too many people around; have a very poor memory, he will remember past events from before the accident better than his daily routine or information he has been told since the injury;
- try to fill in gaps in memory by making things up; (confabulation)

- may get stuck on an idea or activity (perseveration) and need help switching to the next part of the activity;
- focus on basic needs such as eating, relieving pain, going back to bed, going to the bathroom, or going home.

What family/friends can do at Cognitive Level V.

- Repeat things as needed. Don't assume that he will remember what you tell him.
- Tell him the day, date, name and location of the hospital, and why he is in the hospital when you first arrive and before you leave.
- Keep comments and questions short and simple.
- Help him organize and get started on an activity.
- Bring in family pictures and personal items from home.
- Limit the number of visitors to 2-3 at a time.
- Give him frequent rest periods when he has problems paying attention.

COGNITIVE LEVEL VI
CONFUSED AND APPROPRIATE

A person at this level may:

- be somewhat confused because of memory and thinking problems, he will remember the main points from a conversation, but forget and confuse the details. For example, he may remember he had visitors in the morning, but forget what they talked about;
- follow a schedule with some assistance, but becomes confused by changes in the routine;
- know the month and year, unless there is a severe memory problem;
- pay attention for about 30 minutes, but has trouble concentrating when it is noisy or when the activity involves many steps. For example, at an intersection, he may be unable to step off the curb, watch for cars, watch the traffic light, walk, and talk at the same time;
- brush his teeth, get dressed, feed himself etc., with help;
- know when he needs to use the bathroom;
- do or say things too fast, without thinking first;
- know that he is hospitalized because of an injury, but will not understand all of the problems he is having;
- be more aware of physical problems than thinking problems;
- associate his problems with being in the hospital and think that he will be fine as soon as he goes home.

What family/friends can do at Cognitive Level VI:

- You will need to repeat things. Discuss things that have happened during the day to help the individual improve his memory.
- He may need help starting and continuing activities.
- Encourage the individual to participate in all therapies. He will not fully understand the extent of his problems and the benefits of therapy.

COGNITIVE LEVEL VII
AUTOMATIC AND APPROPRIATE

A person at this level may:

- follow a set schedule;
- be able to do routine self care without help, if physically able. For example, he can dress or feed himself independently; have problems in new situations and may become frustrated or act without thinking first;
- have problems planning, starting, and following through with activities;
- have trouble paying attention in distracting or stressful situations. For example, family gatherings, work, school, church, or sports events;
- not realize how his thinking and memory problems may affect future plans and goals. Therefore, he may expect to return to his previous lifestyle or work;

- continue to need supervision because of decreased safety awareness and judgment. He still does not fully understand the impact of his physical or thinking problems;
- think slower in stressful situations;
- be inflexible or rigid, and he may seem stubborn. However, his behaviors are related to his brain injury;
- be able to talk about doing something, but will have problems actually doing it.

COGNITIVE LEVEL VIII
PURPOSEFUL AND APPROPRIATE

A person at this level may:

- realize that he has a problem in his thinking and memory;
- begin to compensate for his problems;
- be more flexible and less rigid in his thinking. For example, he may be able to come up with several solutions to a problem;
- be ready for driving or job training evaluation;
- be able to learn new things at a slower rate;
- still become overloaded with difficult, stressful or emergency situations;
- show poor judgment in new situations and may require assistance;
- need some guidance to make decisions;
- have thinking problems that may not be noticeable to people who did not know the person before the injury.

What family/friends can do at Cognitive Levels VII/VIII

- Treat the person as an adult by providing guidance and assistance in decision making. His opinions should be respected.
- Talk with the individual as an adult. There is no need to try to use simple words or sentences.
- Be careful when joking or using slang, because the individual may misunderstand the meaning. Also, be careful about teasing him.
- Help the individual in familiar activities so he can see some of the problems he has in thinking, problem solving, and memory. Talk to him about these problems without criticizing. Reassure him that the problems are because of the brain injury.
- Strongly encourage the individual to continue with therapy to increase his thinking, memory and physical abilities. He may feel he is completely normal. However, he is still making progress and may possibly benefit from continued treatment.
- Be sure to check with the physician on the individual's restrictions concerning, driving, working, and other activities. Do not just rely on him for information, since he may feel he is ready to go back to his previous lifestyle.
- Discourage him from drinking or using drugs, due to medical complications.
- Encourage him to use note taking as a way to help with his remaining memory problems.
- Encourage him to carry out his self-care as independently as possible.
- Discuss what kinds of situations make him angry and what he can do in these situations.
- Talk with him about his feelings.
- Learning to live with a brain injury can be difficult and it may take a long time for the individual and family to adjust. The social worker and/or psychologist will provide the family/friends with information regarding counseling, resources, and/or support organizations.

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