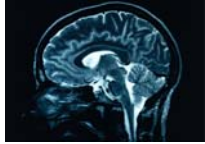


PEDIATRIC TRAUMA UPDATE

Volume 1, Issue 8
October & November 2008



TRAUMATIC BRAIN INJURY—COGNITIVE CARE

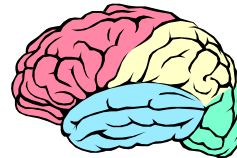
Unresponsive, localized response, agitation, confusion, appropriate response; these are all words healthcare providers use to describe the cognitive function of the child who has experienced a traumatic brain injury. The biggest question often is how to cognitively care for these patients as they recover. When are medications important versus a change in environment?

The Rancho Los Amigos scale can be utilized by healthcare professionals to help answer these questions. These Rancho Levels are based on observations of the patient's response to external stimuli. They provide a descriptive guideline of the various stages a brain injury patient will experience as he/she progresses through recovery.

Please take a moment to review the graph below which will hopefully provide ideas and support for you AND the family when providing cognitive care to this patient population.

Adult and Pediatric Trauma Re-Verification originally scheduled for October 27-28th has been delayed...please watch for more information!!

RANCHO LOS AMIGOS SCALE: LEVELS OF COGNITIVE FUNCTION



For levels I-III, the key approach is to provide stimulation

Cognitive Level	Description	Management
I—No Response	Completely unresponsive to all stimuli, including painful stimuli	Multiple modalities of sensory input should be used:
II—Generalized Response	Nonpurposeful response; responds to pain, but nonpurposefully.	<i>Olfactory:</i> perfumes, flowers, shaving lotion <i>Visual:</i> family pictures, cards, personal items.
III—Localized Response	Responses are more focused: withdraws from pain; turns toward sound; follows moving objects that pass within visual field; pulls on sources of discomfort; may follow simple commands but inconsistently and in a delayed manner.	<i>Auditory:</i> radio, TV, tapes of family voices, talking to patient. The nurse should tell patient what is going to be done, discuss the environment, provide encouragement. <i>Tactile:</i> touching skin, rubbing various textures on skin. <i>Movement:</i> ROM, turning, repositioning.

Pediatric Trauma Cases September/October 2008

Number of Admissions	61
Number of ED visits	66
Deaths	1
Number of Trauma Alerts	23
Number of Trauma Activations	7

Special Points of Interest

- Want to "talk trauma"? Remember you can always send an e-mail to Trauma Talk using Microsoft Outlook e-mail.
- Questions or concerns related to Pediatric Trauma Care? Contact Kristel Wetjen @ 6-1299 or page 5239. kristel-wetjen@uiowa.edu

- Watch for signs of overstimulation in the above group such as increased heart rate, increased respiratory rate, agitation, etc. If such signs are noted, decrease stimulation to allow the patient to rest.
- Family should only be educated regarding signs of overstimulation mentioned above. Limiting visitors to 1-2 at a time may help.
- Schedule low-stimulation times for the patient.



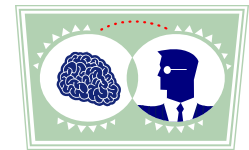
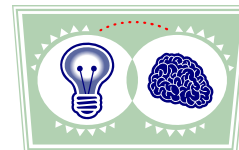
RANCHO LOS AMIGOS SCALE: LEVELS OF COGNITIVE FUNCTION



For levels IV–VI, the key approach is to provide structure

Cognitive Level	Description	Management
IV—Confused, Agitated Response	Alert, hyperactive state in which patient responds to internal confusion/agitation; behavior nonpurposeful in relation to environment; aggressive, bizarre behavior common	<p>Interventions are directed at decreasing agitation, increasing environment awareness, and promoting safety.</p> <ul style="list-style-type: none"> Approach patient in a calm manner, and use a soft voice. Screen patient from environmental stimuli; provide a quiet, controlled environment. Remove devices that contribute to agitation if possible. Functional goals cannot be set, because the patient is unable to cooperate. Staff consistency is very important during this time as familiarity will very much help with agitation. Medication may be necessary if patient is a harm to him/herself or others or if medical devices such as tubes/lines are still medically necessary. Consider a sleep aid if patient is unable to sleep as rest is very recuperative.
V—Confused, inappropriate response	When agitation occurs, it is the result of external rather than internal stimuli; focused attention is difficult; memory is severely impaired; responses are fragmented and inappropriate to the situation; there is no carryover of learning from one situation to the other.	<p>For level V and VI, interventions are directed at decreasing confusion, improving cognitive function, and improving independence in performing ADLs.</p> <ul style="list-style-type: none"> Consistent staff if possible Focus the patient's attention and help to increase his or her concentration.
VI—Confused, appropriate response	Follows simple direction consistently but is inconsistently oriented to time and place; short-term memory worse than long-term memory; can perform some ADLs.	<ul style="list-style-type: none"> Help the patient organize activity Clarify misinformation and reorient when confused. Provide a consistent, predictable schedule and post it in room.

- Watch for signs of overstimulation and provide several low stimulation rest times throughout the day.
- Attention span will be short at best, allow breaks.
- If the patient responds well to others consider utilizing volunteers, child life, music therapy, and others to provide structure for the patient.
- Restraints may be necessary for protection of medical equipment. Consider the following: soft wrist restraints, hand mitts, or a posey.



For levels VII–VIII, the key approach is integration into the community.

Cognitive Level	Description	Management
VII—Automatic, appropriate response	Appropriately responsive and oriented within the hospital setting; needs little supervision in ADLs; some carryover of learning; patient has superficial insight into disabilities; has decreased judgment and problem-solving abilities; lacks realistic planning for future.	<p>For levels VII and VIII, interventions are directed at increasing the patient's ability to function with minimal or no supervision in the community.</p> <ul style="list-style-type: none"> Reduce environmental structure. Help the patient plan for adapting ADLs for self into the home environment.
VII—Purposeful, appropriate response	Alert, oriented, intact memory; has realistic goals for future; judgment and problem solving skills intact; has realistic plans for community integration.	<ul style="list-style-type: none"> Discuss integration into the community setting. Help the patient plan, anticipate concerns, and solve problems.