Patient Name: _____   File Number: _____

COGNITIVE SCREENING SHEET

Cognitive Skills	Key: I, IM, N/A	Comments
1. Basic Cognitive Skills		
A. Alertness/ Arousal		
B. Orientation Time		
Place		
Person		
Situation		
C. Attention Sustained		
Selective		
Divided		
Alternate		
D. Initiation & Termination of Activity		
E. Memory Short Term		
Long Term		
• Explicit		
• Procedural		
F. New Learning		
2. Higher Cognitive Skills		
A. Command Following		
B. Sequencing		
C. Planning/ Organization		
D. Abstract Thinking		
E. Decision Making		
F. Safety/ Judgment		
G. Problem Solving		
H. Mental Flexibility		
I. Self Awareness/ Insight		
J. Generalization of Learning		
K. Categorization		
L. Self Control/ Impulse Control		

Key	I	Intact	IM	Impaired	N/A	Not Applicable

Therapist Signature: _____   **Date:** _____

Cognitive & Perceptual

Cognition:

- The ability of the brain to process, store, retrieve and manipulate information
- Check the patient's cognitive skills and write whether its intact, impaired or not applicable

1. Basic Cognitive Skills	
A. Alertness/ Arousal	Is the patient alert and aware of his or her surrounding? Is the patient sleepy or awake during a session?

B. Orientation	Ability of an individual to identify/be aware of himself in relation to other people, his surrounding environment, and time of day (ex. person, place and time)
	
	▪ **Orientation to person:**
	The ability of an individual to identify or be aware of himself in relation to other people
	   o What is your name?
	   o How old are you?
	   o What's your father's name?
	
	▪ **Orientation to place:**
	The ability of an individual to identify or be aware of himself in relation to his surrounding environment
	   o Where are you now? (what is this place)
	   o Where is your house? (country, district, town, street)
	
	▪ **Orientation to time:**
	The ability of an individual to identify or be aware of himself in relation to time of the day
	   o What time is it now?
	   o Do you know what today's date? (Day, date, month, year)
	   o When is your birthday?
	   o How long were you in the hospital?
	   o When did you get admitted?
	
	▪ **Orientation to situation:**
	The ability of an individual to identify or be aware of his current situation/ recent injury
	   o Do you remember why you are in the hospital?
	   o Which parts are affected in your body?

	Ability to focus on a specific stimulus without being distracted. It is the most primary cognitive skill which when not sustained other cognitive functions cannot be assessed
	• Note whether the patient is consistently able to attend to the screening procedures and whether he or she becomes distracted by extraneous noise in the environment

	• **Focused attention:**
	Ability to respond discretely to auditory, visual, tactile, etc. stimuli
	   o Simple trail test: connect the numbers given in the circle, in sequence
	   o Digit repetition test: therapist has to present numbers randomly at one per second, increase length gradually. Stop the test when patient fails twice at one length

C. Attention	• **Sustained attention:**
	Ability to maintain attention during continuous repetitive activity
	   o Letter cancellation: the patient has to cancel the target letter which occurs frequently on the sheet given
	   o Random letter test: therapist reads the letters at one letter per sec, patient has to tap with pen when he hears the target letter/ no

	• **Selective attention:**
	Ability to focus attention in the presence of distracting stimuli
	   o Identify the lyrics in the song: present a song (patients language) and ask the patient to identify the lyrics
	   o Stoop test: patient has to read the cards given, and compare time taken to complete each command
	   o Card A: read the words, read the colours; Card B: read the words, read the sizes

	• **Divided attention:**
	Ability to respond simultaneously to multiple tasks
	   o Reverse digit span: therapist performs a digit repetition test but here, the patient is asked to repeat digits in reverse order
	   o Serial addition: the patient is asked to add on a particular number, e.g., 7 in series

	o Serial subtraction: the patient is asked to subtract the number 3 or 7 from 100 in a series
	
	▪ **Alternate attention:**
	Ability to shift focus of attention from one task to another
	    o Letter cancellation: the patient has to cancel two or more target letter which occur frequently on the sheet given
	    o Picture cancellation: cancel two or more pictures on a given sheet
	    o Modified trail: a circle with numbers and alphabets are given in random, patient has to join/ trail from 1 to a to 2 to b and so on

D. Initiation & Termination of Activity	Is the patient able to initiate simple ADLs independently, or does the patient require cues and setup? ▪ Once started on an ADL, can the patient terminate the activity when completed, or does the patient continue to carry out the activity without external cues to stop?

E. Memory	Ability to process, store, and retrieve information
	It consists of the following processes:
	   ▪ Registration and encoding
	   ▪ Consolidation and storage
	   ▪ Recall and retrieval of information
	
	Types of memory:
	1. **Immediate memory:**
	   ▪ Memory held in conscious awareness, usually less than one minute
	   ▪ Name the objects you have seen? (ask immediately)
	
	2. **Short term memory:**
	   ▪ Memory held temporarily, period of slightly longer than one minute lapses between stimulus and recall, sometimes called primary memory
	   ▪ What did you have for breakfast today?
	   ▪ Did you have visitors last evening? Who were they?
	   ▪ What is my name? When did you first meet me?
	   ▪ Name the objects you have seen? (after giving patient 2 to 5 minutes)

3. **Long term memory:**
   - Memory that involves an interval of more than a few minutes between stimulus and recall, sometimes called secondary memory
   - What are the names of your siblings, children, and spouse?
   - In what year were you born?
   - In what year were you married?
   - Where did you grow up?
   - What year did you graduate from school?

   I. **Types of long term memory:**
      a. **Recent memory:**
         - Usually corresponds to long term memory includes memory from hours to months post stimulus presentation
            o What did you have for breakfast?
            o What did your doctor tell you today morning?
            o How long you are in the hospital?

      b. **Remote memory:**
         - Very long term memory, memory for past events as from childhood
            o When is your birthday?
            o When did you finish school?

4. **Declarative memory:**
   - Memory which includes facts and events

   I. **Types of declarative memory:**
      a. **Episodic memory:**
         - Memory of one's own personal history. It's a recollection of one's personal history in the form of events
            o Tell me a happy moment in your life?
            o Tell me an event you remember in childhood?
            o Tell me about your school/ university days?

      b. **Semantic memory:**
         - Personal knowledge of the world/general knowledge. It involves recollection of facts, including dates, figures, knowledge of the world, and general knowledge, etc.
            o What is big, an elephant or an ant?
            o Who is the president king of your country?

	o Tell me the difference between a banana and an apple?
	
	5. **Non-declarative memory:**
	   ▪ Memory which involves recollection of procedures and skills
	
	   ▪ **Types of non-declarative memory:**
	   a. Working memory:
	   ▪ Temporary storage and manipulation of information needed to perform a task
	     o Tell me what is the procedure/ steps involved in withdrawing money from an ATM?
	     o How do you cook rice?
	     o How do you put your shoe lace on
	
	   b. Prospective memory:
	   Memory which corresponds to remembering to do things in the future
	     o What do you plan to do regarding your health?
	     o What will you do when you go back home?

F. New Learning	The ability to encode STM into LTM storage, ask the patient the following:
	  ▪ Can the patient remember the names of familiar clinical staff members?
	  ▪ Is the patient able to remember why he or she is in the hospital?

2. Higher Cognitive Skills

A. Command Following	Instruct the patient to carry out a simple two or three step task, ask the patient to perform at least two of the following: • Write your name, address, and phone number on this piece of paper • Take a piece of paper and fold it into half • Place folded paper in the envelope
B. Sequencing	Ask the patient to perform at least two of the following: • Count forward and backward (e.g. from 20 to 30 and from 30 to 20) • State the months of the year in sequence – forward and backward • Describe the steps of laundry or preparing a sandwich
C. Planning/ Organization	The ability to mentally conceptualize an event or activity that will occur in the future. Planning involves the ability to assess task demands, analyze and synchronize the components of a task, consider a range of options and make a decision regarding the best course of action. Planning requires the process of abstraction. Ask the patient to perform at least one of the following: • Plan a shopping list for an upcoming barbecue for 10 people • Plan a monthly budget for himself or herself • Plan a weekend vacation at the shore
D. Abstract Thinking	The most complex stage in the development of cognitive thinking, in which thought is characterized by adaptability, flexibility, and the use of concepts and generalizations. For example, perceiving a table and a chair as furniture. Problem solving is accomplished by drawing logical conclusions from a set of observations, for example, making hypotheses and testing them. This type of thinking is developed by 12 to 15 years of age, usually after some degree of education. • The ability to calculate, sort, categorize, conceptualize, draw conclusions, or interpret and condense complex ideas • The ability to interpret a complex set of ideas having symbolic meaning • It is assessed by asking patients to interpret proverbs, patients with dementia or other cognitive deficits may fail to do so, as they fail to see the relationships between similar objects and ideas

E. Decision Making	The process of identifying and choosing alternatives based on the values and preferences of the decision-maker
	• Resulting in the selection of a belief or a course of action among several alternative possibilities
	• Every decision-making process produces a final choice that may or may not prompt action
	• The thought of selecting a logical choice from the available options
	   o When trying to make a good decision, a person must weigh the positives and negatives of each option, and consider all the alternatives
	   o For effective decision-making, a person must be able to forecast the outcome of each option as well, and based on all these items, determine which option best for that particular situation

F. Safety/ Judgment	Depends on individual's insight or awareness of deficit areas, for example, does the patient attempt to get out of the wheelchair without locking the brakes and moving the footplates away? Describe at least thereof the following emergency situations and ask the patient to determine what he or she would do: • You are asleep in your room at home. The smoke alarm goes off. What should you do? • You lose your keys and are locked out of your house. What should you do? • You are home alone. You fall and are unable to move your leg. You are in a great pain. What's the best thing to do?

G. Problem Solving	An integration of many cognitive abilities where it is the ability to manipulate a fund of knowledge and apply the information to new or unfamiliar situations
	High level skill involving planning and abstraction.
	It involves the following:
	  • **Problem recognition:**
	    Can the patient recognize that a problem exists?
	  • **Problem analysis:**
	    Is the patient able to understand the cause of a problem?
	  • **Problem resolution:**
	    Is the patient able to consider a range of possible resolutions? Is the patient able to select the best option for resolution? Is the patient able to implement the selected resolution?
	  • **Resolution assessment:**
	    Is the patient able to assess how well the selected resolution worked?
	  • **Resolution revision:**
	    Is the patient able to revise the resolution plan if the first attempted resolution did not work optimally?
	
	Ask the patient to problem solve at least one of the following scenarios:
	  • You get on the bus to go to work but find that you have taken the wrong bus and have ended up at a destination 10 miles from your work site. You are now 45 minutes late for work. What should you do? What are your options?
	  • One night there is a thunderstorm that knocks out the electrical power to your home for several hours. Your phone lines are also down. You see that your neighbor's tree has been struck by lightning and is on fire. What should you do?

H. **Mental Flexibility**	A component of selective attention. It requires the patient to switch back and forth between two (or more) separate tasks
	  • The patient must demonstrate selective attention for each task while performing it
	
	Instruct the patient to perform one of the following tasks:
	  • Simultaneously monitor the preparation of soup (in a pot on the stove) and toast in the toaster. Can the patient switch back and forth between two tasks involved in meal preparation?
	  • Simultaneously boil water for tea while completing a crossword puzzle, making a weekly shopping list, or reading a newspaper. Can the patient switch back and forth between unrelated tasks?

I. **Self Awareness/ Insight**	Is the ability to demonstrate an understanding of one's strengths, weaknesses, motivations and behaviors
	  • Ask the patient to describe both personal strengths and weaknesses
	  • Note whether the patient is aware of deficit areas
	  • Ask the patient to describe how his or her deficits have affected daily life skills

J. **Generalization of Learning**	The concept is similar to new learning. It's the ability to transfer skills needed for one task to a new task that is similar. It depends on intact memory system. LTM must be intact for an individual to transfer learned skills already in LTM storage to a new but similar situation. STM also must be intact for the individual to learn the skills needed for the new, similar task
	  • The individual must recognize the similarity between the old task and the new task. This requires the cognitive skills of comparison, analysis, discrimination, and the ability to determine relationships between situations
	  • Can the patient transfer the skills already learned for using the washing machine in apartment building to the skills needed to operate a similar but different washing machine in new residence or OT kitchen, use the following steps to determine transfer of skills:
	    o Demonstrate how to use the washing machine in the OT kitchen
	    o Ask the patient to wash a loud of laundry using the new washing machine

	- Similarly, can the patient transfer the skills already learned for hot meal preparation using microwave in apartment to a different microwave in new residence or OT kitchen - A cognitive impairment is indicated if the patient is unable to generalize existing knowledge to newly learned situations after significant repetition
K. Categorization	Ask the patient to name as many items as possible in a specific category As at least two of the following: - Name as many farm animals as possible - Name as many modes of transportation as possible - Name as many words that begin with the letter P as possible The ability to cognitively generate items belonging to a specific category is a test of concept formation and thought generation. It requires visual attention and visual discrimination - Ask the patient to sort items into separate piles of the following tasks: - Sort utensils into groups of spoons, forks and knives - Sort food into groups of fruits, vegetables and breads
L. Self Control/ Impulse Control	The ability to monitor and regulate impulses, urges and compulsions and is considered to be one of the executive functions. The cognitive skills needed to override socially unacceptable urges in order to behave in socially appropriate ways. The patient may display impulsivity, aggression, irritability, agitation, and sexual disinhibition; (loss the ability to self-regulate socially inappropriate behaviors) The therapist should note whether the patient presents any of the following behaviors of disinhibition: - Does the patient verbalize inappropriate sexually related comments? - Does the patient act impulsively? - Is the patient verbally or physically aggressive?