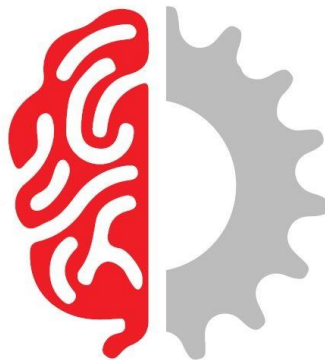


# DOC SCREEN INSTRUCTIONAL MANUAL

*AN IN-DEPTH INSTRUCTION MANUAL ON HOW TO  
COMPLETE THE DOC SCREEN*



## DOC

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Depression, Obstructive Sleep Apnea & Cognitive Impairment

## 1.0 DOC SCREEN INSTRUCTIONS AND SCORING

1. Fill out/collect the following: date, patient name, date of birth, age, education, sex, height and weight

### 2. Explain Memory Task:

*"I am going to read a list of words that you will have to remember now and later on. Listen carefully. When I am through, tell me as many words as you can remember. It doesn't matter in what order you say them. FACE, VELVET, CHURCH, DAISY, RED."*

Mark a check in the allocated space for each word the subject produces on this first trial. When the subject indicates that they have finished (has recalled all words), or can recall no more words, read the list a second time with the following instructions:

*"I am going to read the same list for a second time. Try to remember and tell me as many words as you can, including words you said the first time. FACE, VELVET, CHURCH, DAISY, RED."*

Put a check in the allocated space for each word the subject recalls after the second trial.

At the end of the second trial, inform the subject that they will be asked to recall these words again by saying,

*"I will ask you to recall those words again at the end of the test."*

**Scoring: No points are given for Trials One and Two.**

### 3. DOC Mood

*"Over the last 2 weeks, how often have you been bothered by any of the following problems: Having little interest of pleasure doing things? Do you feel this way none of the time, several days, more than half the days or nearly every day?"*

Put a check in the allocated space.

*"How about feeling down, depressed or hopeless?"*

Put a check in the allocated space.

**Scoring: not at all (0 pt.), several days (1 pt.), more than half the days (2 pt.), nearly every day (3 pt.), for a total score out of 6.**

#### 4. DOC Apnea

*“This next part is about your sleeping habits. Do you snore loudly? Louder than talking, heard through or door, or bother other people?”*

Put a check in the allocated space. If the patient is unsure, you may prompt a family member or caretaker they are with.

*“Do you often feel tired, fatigued or sleepy during the daytime?”*

Often is defined as more than half the days of the week. Put a check in the allocated space.

*“Has anyone observed you stop breathing during your sleep, such as gaps or pauses in breath?”*

Put a check in the allocated space. If the patient is unsure, you may prompt a family member or caretaker they are with. If the patient is not sure because they sleep alone, ask if they recall ever waking up gasping for breath. If they recall waking up gasping for breath check ‘YES’, if they do not, check ‘NO’.

*“Do you have, or are you being treated for high blood pressure?”*

Put a check in the allocated space. If the patient is unsure, you can verify this information with their family member or check their chart after the screen. If you found that the patient had high blood pressure during Part 1 of the screen, you do not have to ask the patient again, simply check off yes

**Scoring: yes (1 pt.), no (0 pt.) for a total score out of 4.**

#### 5. DOC Cog

##### 5.1 Visuoconstructional Skills (Clock) Task

*“Draw a circular clock. Put in all the numbers and set the time to ten past eleven.”*

**Scoring:**

**Contour:** the face must be a circle with only minor distraction acceptable (1 pt.)

**Numbers:** all clock numbers must be present with no additional numbers; numbers must be in the correct order and placed in the approximate quadrants on the clock face; Roman numerals are acceptable; numbers can be placed outside the circle contour (1 pt.)

**Hands:** there must be two hands jointly indicating the correct time (ten past eleven); the hour hand must be clearly shorter than the minute hand; hands must be centered within the clock face with their junction close to the clock centre (1 pt.), (total score of 3pts.).

## 5.2 Abstraction task

The patient will have to state the similarities between two objects. The first example is a practice trial and is not scored. Initiate the practice trial:

*“Tell me how an orange and a banana are alike”.*

If the subject answers in a concrete manner, then say only one additional time:

*“Tell me another way in which those items are alike”.*

If the subject does not give the appropriate response (*fruit*), say,

*“Yes, and they are also both fruit, this is the type of response we are looking for.”*

Do not give any additional instructions or clarification. After the practice trial, say:

*“Can you tell me how a train and a bicycle are alike?”*

Following the response, administer the second trial, saying:

*“Can you tell me how a ruler and a watch are alike?”*

Do not give any additional instructions or prompts.

**Scoring: Only the last two item pairs are scored. Give 1 point to each item pair correctly answered for a score out of 2.**

**The following responses are acceptable:**

- Train-bicycle = means of transportation, means of travel, take trips in both
- Ruler-watch = measuring instruments, used to measure

**The following responses are not acceptable:**

- Train bicycle = they have wheels
- Ruler-watch = they have numbers

## 5.3 Delayed recall task

*“I read some words to you earlier, which I asked you to remember. Tell me as many of those words as you can remember.”*

Make a check mark for each of the words correctly recalled spontaneously without any cues, in the allocated space.

**Scoring: Allocate 1 point for each word recalled freely without any category or multiple choice cues. Sum the Clock Drawing Task, Abstraction and Delayed recall task to calculate the DOC Cog Task score**

## 6. Delayed recall task continued....<sup>1</sup>

Following the delayed free recall trial, prompt the subject with the semantic category cue provided below for each word not recalled.

*“One of the words was a colour”*

Make a check mark in the allocated space if the patient remembered the word with the help of a category cue. If the patient cannot recall the word after being prompted with a category choice, provide a multiple-choice cue.

*“The word was red, blue or green.”*

Place a check in the allocated box to indicate the patient recalled the word using a multiple choice cue if applicable. If the patient still cannot recall the word, leave all allocated spaces for that word blank.

Use the following category and/or multiple-choice cues for each word, when appropriate:

**Ver. 1 of the DOC screen:**

	<b>Category Cue</b>	<b>Multiple Choice Cue</b>
<b>FACE</b>	part of the body	nose, face, hand
<b>VELVET</b>	type of material	denim, cotton, velvet
<b>CHURCH</b>	type of building	church, school, hospital
<b>DAISY</b>	type of flower	rose, daisy, tulip
<b>RED</b>	a colour	red, blue, green

**Ver. 2 of the DOC screen:**

	<b>Category Cue</b>	<b>Multiple Choice Cue</b>
<b>TRAIN</b>	mode of transportation	car, train, bike
<b>EGG</b>	type of food	toast, bacon, egg
<b>HAT</b>	type of clothing	table, stool, chair
<b>CHAIR</b>	type of furniture	rose, daisy, tulip
<b>BLUE</b>	a colour	red, blue, green

**Scoring: No points are allocated for words recalled with a cue.**

**7. Tally up the scores.**

**D DOC-Mood: /6**

**O DOC Apnea) /4**

**C DOC-Cog /10 (Clock /3 + Abstraction /2 + Delayed Recall /5)**

## **Additional considerations when completing the screen:**

- Some patients may not speak English fluently. If a patient does not speak English fluently, a family member or caregiver may be able to help provide translation/interpretation. Patients may memorize the delayed recall words in their preferred language, if translation is available.
- Some patients may be blind or have significant visual problems. Ensure those that need glasses have them on.
- Some patients may have reduced hearing or deafness, ensure that you are speaking clearly and loud enough for them to hear.
- Some patients may have motor impairments make may make it challenging for them to complete the clock drawing task. Use your judgment whether or not to ask them to try to draw the clock.
- Some patients may be aphasic, complete the screen as best you can using alternative communication strategies.
- Ver. 2 of the DOC screen is used if the patient has had previous exposure to the MoCA/DOC screen

## 2.0 Interpreting the DOC Screen Scores

Please refer back to our website [www.docscreen.ca](http://www.docscreen.ca) for assistance with interpretation of screening scores.

There are two options for interpretation of DOC screening score:

- **RAW SCORE INTERPRETATION**
  - Input D, O & C raw score values for a quick triage
  
- **REGRESSION INTERPRETATION**
  - Input D, O & C raw score values plus known clinical and demographic information that increase risk of depression, obstructive sleep apnea and cognitive impairment (age, sex, education, BMI) to improve upon the predictive value of the raw DOC screening scores

Each option will categorize patients into high-, intermediate- and low-risk for each of the DOC conditions.

### 3.0 Data Element Definitions for the DOC Screen

Data Element	Definition to Follow
<b>Patient Demographics</b>	<p><b>Date:</b> DD/MM/YYYY that the screen was administered</p> <p><b>Name:</b> record patient name</p> <p><b>Date of Birth (DOB):</b> record patient date of birth</p> <p><b>Sex:</b> biological sex of the patient</p> <p><b>Education:</b> total years of education completed by the patients inclusive of the following:  <b>Grade level:</b> (1-12/13)  <b>Undergraduate:</b> includes # of completed years towards a Bachelor's degree or any post-secondary training i.e. college, technical school etc.  <b>Graduate:</b> includes # of completed years towards a Master's or PhD</p> <p><b>Height and Weight:</b> record the values in inches/pounds or cm/kg.</p>
<b>Memory Registration</b>	<p><b>First Trial:</b> Select all words the patient was able to register</p> <p><b>Second Trial:</b> Select all words the patient was able to register</p>
<b>DOC Mood</b>	Record score out of 6 based on patient responses: not at all (0 pt.), several days (1 pt.), more than half the days (2 pt.) and nearly every day (3 pt.).
<b>DOC Apnea</b>	Record score out of 4 based on patient responses: Yes (pt.1), No (pt.1)
<b>DOC Cog</b>  <b>Clock</b>  <b>Abstraction</b>  <b>Memory (Delayed Recall)</b>	<p>Record score out of 3: Contour (1 pt.), Numbers (1 pt.), Hands (1 pt.)</p> <p>Record score out of 2: (1 pt. per word pairing)</p> <p>Record score out of 5. 1 point for each word recalled without cue, selected if recalled with category cue, multiple choice cue or if word was not recalled as applicable.</p>