

**EDINBURGH COGNITIVE AND BEHAVIORAL ALS SCREEN – UNIVERSITY OF
PENNSYLVANIA (ECAS-PENN)**
Administration and Guidance Notes for American English Forms A, B, & C
Version 1.1 Revised (2020)

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The ECAS is a practical screening tool that incorporates a range of short cognitive tests shown to be sensitive to cognitive impairment in ALS. The ECAS has been designed to differentiate between the different profiles common with aging including depression, Alzheimer's disease and Frontotemporal Dementia. Executive Functions, Memory, Language, Visuospatial skills and Social cognition are specifically assessed while a Behavioral and Psychosis brief interview can be carried out with caregivers or relatives. The ECAS is designed for ALS patients and answers can be given verbally, or by a combination of writing or pointing. It is suitable for patients who are anarthric or patients who have no hand motor function. The total score is 136 points and should take no longer than 15 minutes to administer. Specific guidance on the administration of ECAS-PENN can be obtained by contacting katyaras@mail.med.upenn.edu.

Equipment required:

To carry out the ECAS, you will need a clock or a watch with a second hand (though a stopwatch would be preferable). A calculator is recommended for calculations (though these can also be carried out by hand). Answers can be written or spoken, though should be spoken where possible. If answers are to be written, extra sheets of paper and a selection of pens that will suit the person's writing ability will be required.

Informant:

Please note that an informant is required to complete the Behavior Screen and Psychosis Screen. This could include the caregiver of a patient, a relative of a participant, or close friend. In circumstances where an informant is not available please use the Alternative Behavior Checklist and Alternative Psychosis Checklist to collect data about behavior and psychosis. However, these alternative forms *may not* be used in the generation of ECAS scores and are for data collection purposes only.

Demographics:

Occupation: Indicate highest level of occupation achieved in lifetime (i.e. not necessarily most current occupation or retired)

Handedness: Indicate right, left, or non-dominant.

Years of Education: please enter both total years of education completed (include all forms, including trade school, for example).

Highest Completed Degree: Indicate the highest-level of completed degree (i.e., high school, two-year degree, college/university, master's degree, professional degree (e.g., PhD, MD, JD)).

Language Difficulties: Please ask the participant "Did you have any difficulties reading or learning to write in school?" and write "yes" or "no". If the participant answers with a specific type of language impairment (e.g., dyslexia) please also document this.

Language – Naming: Score 0-8

Administration: There are eight pictures displayed. Ask the person to name the objects shown. No time limit is enforced for the task. Incorrect answers are recorded. A correct score will only be given if the exact name is said or spelled correctly. Self-corrections are allowed; only the final answer is taken for scoring. Do not prompt for an alternative name once a final response is provided.

Scoring: One point is given for every correct name given. **Correct answers (and acceptable alternatives)** are (left to right, top to bottom):

Form A: scorpion, bow (ribbon), helicopter, fox (wolf/coyote), axe (hatchet), squirrel, swan, and accordion (squeeze box).

Form B: peacock, vest (waistcoat), tractor, zebra, wrench, hedgehog (porcupine), owl, and tambourine.

Form C: ladybug, bracelet, trailer (camper/RV), butterfly, saw, octopus, parrot, and saxophone.

Language – Comprehension: Score 0-8

Administration: Using the pictures from the Language - Naming task, ask the person to indicate (e.g. point or say) the correct answer to the questions. Questions are either read by the person or read to the person, depending on preference. Write down the participant's response, whether correct or incorrect. Some questions will require the repetition of an earlier item to serve as an answer; participants are not warned about this in advance but this can be clarified if queried. If no answer is provided, answer space is to be left blank. Self-corrections are allowed; only the final answer is taken for scoring.

Scoring: One point is given for every correct answer given. **Correct** answers are (left to right, top to bottom):

Form A: helicopter, swan, squirrel, axe (hatchet), helicopter, axe (hatchet), scorpion, and squirrel.

Form B: vest (waistcoat), peacock, tambourine, tractor, wrench, hedgehog (porcupine), tractor, and zebra

Form C: butterfly, saw, parrot, trailer (camper/RV), bracelet, saxophone, saw, and octopus.

Note: If the participant incorrectly *names* an item in the Language - Naming Section, but *identifies* the correct item with the wrong name in the Language - Comprehension Section, score as correct. For example, if the participant incorrectly names item one, 'Scorpion', as 'Lobster' in the Language – Naming Section, but answers 'Lobster' when asked "*Something with a sting*", score as correct. In this instance, the person does not know the name of the item but does comprehend what it is. If, however, someone incorrectly names an item in the Language – Naming Section (e.g., 'Scorpion' named as 'Lobster') and then correctly names it in this Language – Comprehension Section do not retrospectively correct the Language – Naming response but correctly score as correct in this section.

Memory – Immediate Recall: Score 0-10

Administration: Say: "*I am going to read you a short story. Please listen carefully. When I am finished, say or write as much as you can remember.*"

The story should be read at a steady pace of 2 words per second/the story should take around 20 seconds to read out. When finished reading story aloud, say to participant "***Now that's the end of the story, what can you remember?***" Time for recall is unlimited, until participants say that they can remember no more. Self-corrections are allowed; only the final answer is taken for scoring.

Scoring: Score 1 point for each acceptable response in the tables below. Note that number information must always be recalled accurately, for example "Forty two people" recalled as '*forty something*' would score 0 points. This immediate recall score will also be used later on to calculate the percentage of memory retained over time. **No prompts should be given for specific information, only "is that everything you can remember?" should be asked to confirm the participant is finished with recall.**

Form A: Score 1 point for each acceptable response.

Item	Acceptable responses
Sunday	Only 'Sunday' is accepted.

Annual Park Cleanup	'annual park cleanup', 'annual cleanup', 'garbage cleanup', 'park cleanup', or 'annual trash cleanup' are accepted.
Marigold Woods	Score correct if any part of 'Marigold Woods' is recalled verbatim. Additional items may be semantically similar e.g., 'forest', 'park'.
Forty two	Only the exact number 'Forty-two' is accepted.
Bicycles and Shopping Carts	A semantically similar response is required for each item like replacing 'shopping carts' with 'carts' or 'trolley'. A score of zero if no mention of something related to each of bicycles and no mention of something related to shopping carts.
Robert Webber	Either 'Robert' and/or 'Webber' is accepted.
Woodland Project	'Woodland' is required but semantically similar alternative are acceptable for 'project' such as 'plan'.
Impressed and Especially Proud	Any positive emotional response like 'pleased' is accepted.
17	Only the exact number 'Seventeen' is accepted.
Children	'Children' or responses with similar meaning are accepted e.g., 'kids'.

Form B: Score 1 point for each acceptable response.

Item	Accepted responses
Three	Only the exact number 'Three' is accepted.
Fishing boats	'Fishing' and/or 'boats'. If the participant correctly identifies one meaning of this item, score as correct e.g., 'fishermen' is accepted, as is 'sailing boats'.
Helped rescue	'Helped', 'rescue', or 'saved' are accepted
Whale	Only 'whale' or 'whales' are accepted
Shore	'Shore' or responses with similar meaning are accepted e.g., 'near the beach', or 'just off the coast' are accepted
Circles	Close synonyms or responses with similar meaning should be scored as correct e.g., 'the whales were going round and round'.
Alan Williams	Either 'Alan' and/or 'Williams' is accepted.
Marine conservation trust	Score correct if any part of 'marine conservation trust' is recalled verbatim. Additional items may be semantically similar e.g., animal, wildlife, nature, board, trust, group, agency, council.
Thirty-two	Only the exact number 'thirty-two' is accepted.
Last winter	'Last winter', 'this winter', 'previous year', or 'last year' are accepted. 'Last Summer' or 'this year' should not be accepted.

Form C: Score 1 point for each acceptable response.

Item	Acceptable responses
Helen Blake	Either 'Helen' and/or 'Blake' is accepted.
Boston	Only 'Boston' is accepted.
Northern	Only 'Northern' or 'north' are accepted.
Prize	'Prize' or a semantically-related alternative like 'award', or 'competition' are required. 'Art' or a semantic associate on its own is not accepted.
Photography	'Photography', 'photographs', 'photographer' are accepted.
Forty-seven	Only the exact number 'Forty-seven' is accepted.
Hiking	'Walking in the country' is accepted, whereas just 'walking' is not.
Seven hundred	Only the exact number 'Seven hundred' is accepted.
Oak tree	Must mention 'Oak', or 'oak tree' is accepted. 'Tree' or 'forest' alone is not accepted.
Autumn colors	'Autumns colors', 'Autumn leaves', 'autumnal' or just 'autumn' are accepted. 'Fall' is an accepted alternative to Autumn. 'Golden leaves' is not accepted.

Language – Spelling: Score 0-12

Administration: Say *"Spell, either by writing or speaking, the following words."*

If the person is using assistive technology, ask them to turn off any predictive text facility. Unlimited time is given for spelling of each word. All words are assessed even if early words in the list are incorrect. Move on to the next word if participant is unable or unwilling to attempt spelling of one word. The word may be clearly stated by the interviewer several times if necessary. For example, if the participant spells 'constructing' as 'construction', restate the word clearly. Similarly, if the plural of the word is spelled e.g., 'biscuits' instead of 'biscuit', restate the target word clearly.

Special Instructions:

Form A: it may be necessary to clarify item 12, 'brought'. If so, say: "I brought the gift to the party".

Form B: it may be necessary to clarify item 12, 'thought'. If so, say: "I thought dinner was at eight o'clock".

Form C: It may be necessary to clarify item 12, 'wrong'. If so, say: "You called the wrong number". Please ensure that 'schedule' is pronounced 'sked-ule' for North America, and not 'shed-ule'. If participant incorrectly spells 'wheelbarrow' as 'wheel barrel', please say 'I would like for you to spell wheelbarrow' ensuring to pronounce the word clearly.

Scoring: Score 1 point for each correct spelling. Self-corrections are allowed; only the final answer is taken for scoring. Do not penalize if the participant inserts a space in the spelling of the words (e.g., coathanger, toothpick, or babysitter). Caution should be taken in interpretation where low premorbid IQ or a history of reading or spelling difficulties is reported. Please remember to ask the participant and/or informant about premorbid history of language difficulties, as instructed at the top of each ECAS form.

Fluency - Letter: Score 0-12

Administration: The person can perform this task either by speaking or writing. Say: *"I am going to give you a letter of the alphabet and I would like you to say or write as many words as you can beginning with that letter, but not names of people or places, or numbers."*

Form A:

- Speaking: "You will have one minute and the letter is S."
- Writing: "You will have two minutes and the letter is S."

Form B:

- Speaking: "You will have one minute and the letter is F."
- Writing: "You will have two minutes and the letter is F."

Form C:

- Speaking: "You will have one minute and the letter is P."
- Writing: "You will have two minutes and the letter is P."

Next the person copies/repeats these words.

- All answers provided are recorded and copied/repeated (i.e., do not remove repetitions, intrusions, errors).
- If speaking, ensure the participant can read the words you have written, then say: *"Read aloud these words as fast as possible. Before you do this, check that you can read them. I will time you. Ready? Begin."*
- If writing, say: *"Copy these words as fast as possible. I will time you. Ready? Begin."*

Scoring (all forms): Although all answers are recorded in the administration, the following rules apply for scoring items as correct:

- Words must be varied for example: *sugar, salt, slipper, snow, scream, shoot, scale, scissors...*
- Do not include repetitions, nonsense words (i.e., cannot be found in an English dictionary), or proper names in scoring items correct.
 - When a second meaning is provided or indicated each word is scored as an independent item. For example:
 - Apparent repetition of a word, but a second meaning is provided (e.g. *'Fine'* – indicating something is high quality, or *'Fine'* – a monetary penalty).
 - Items that are spoken and a different spelling/meaning is indicated (e.g. *paced* and *paste*).
 - Items in which a meaning change is indicated (e.g. *savor* and *savory*)
 - When a word is related but a different grammatical part of speech (e.g., *final* is a verb and *finally* is an adverb), each word is scored as an independent item.
 - Plural words will be accepted, only if they have not already been provided in singular form (e.g., *paper*, *papers* = score 1). If both a singular and plural are provided only the first word is scored.
 - If conjugations of verbs are provided (e.g., *sit*, *sat*) only the first word is scored.

In order to account for differences in motor speed and speaking time variations, a Verbal Fluency Index (VFI) is calculated using the equation below.

$$VFI = \frac{\text{Test time} - \text{time taken to repeat words}}{\text{Number of correct words generated}}$$

For example, a participant given 60 seconds to complete the task who generates 5 words and then takes 15 seconds to read these words aloud would have a VFI of 9:

$$VFI = \frac{60 - 15}{5} = 9$$

A participant's VFI is converted to a Fluency score using the conversion table provided in ECAS test, page 2.

Executive – Reverse Digit Span: Score 0-12

Administration: Numbers should be read out at a pace of 1 number per second. Say: *"I am going to say some numbers and I would like you to say them back to me in reverse order. For example, if I say '2 3 4', you should say '4 3 2'. Let's practice. If I say '7 1 9', what would you say?"*

If the participant makes an error on the practice trial, they are corrected, and the first trial of the test begins. If the participant fails the first two items then the test is scored at 0 and no further items are attempted. Advance warning that the number sequences will increase in length is provided at the start of each line of a trial. In order to score a trial of a line as correct, participant must accurately recall *all* items in reverse order. No score is given for individual numbers correctly recalled in an incorrectly recalled sequence. If person gets at least one trial of a line correct, move on to the next line. Self-corrections are allowed; only the final answer is taken for scoring. Stop when person gets both trials of a line wrong.

Scoring: Score is total number of trials achieved correctly (out of 12).

Executive – Alternation: Score 0-12

Administration: Say: *"I want you to alternate between numbers and letters, starting with 1-A, then 2-B, 3-C, and so on. Please continue from there, alternating between numbers and letters, in order, without skipping any until I tell you to stop. Let's begin together: 1-A, 2-B, 3-C..."* Having started with the participant, let them continue the sequence alone. If the participant alternates with the letter first and number second (e.g., D-4, E-5) continue the administration since the sequential ordering is preserved. Stop administration after the participant makes an error.

Scoring: One point is given for every correct trial. Score as correct whether the participants first response initiates with a letter then number (e.g., D-4, E-5, ...) or a number then a letter (e.g., 4-D, 5-E).

Fluency – 4-Letter Words: Score 0-12

Administration: The person can perform this task either by speaking or writing. Say: *"I am going to give you a letter of the alphabet and I would like you to say or write as many words as you can beginning with that letter. **But not names of people or places, or numbers. This time the word must only be four letters long. No more or less than four letters.**"*

Form A:

- Speaking: "You will have one minute and the letter is T."
- Writing: "You will have two minutes and the letter is T."

Form B:

- Speaking: "You will have one minute and the letter is D."
- Writing: "You will have two minutes and the letter is D."

Form C:

- Speaking: “You will have one minute and the letter is M.”
- Writing: “You will have two minutes and the letter is M.”

Next the person copies/repeats these words. If writing, say: “Copy these words as fast as possible. I will time you. Ready? Begin.” If speaking, say: “Read aloud these words as fast as possible. Before you do this, check that you can read them. I will time you. Ready? Begin.”

Scoring: Plurals are accepted in order to create four letters – for example, *Toes*. Contractions are also accepted – for example, *don’t*. See scoring criteria from previous Fluency task to produce VFI, and conversion table provided in ECAS test packet, page 3.

Visuospatial – Dot counting: Score 0-4

Administration: Say “I would like you to count how many dots are in each box, but without pointing to them”. Progress from left to right and top to bottom to move through the squares. All squares should be attempted. If the participant begins pointing directly at the dots, remind them of the instructions. If participants begin pointing away from the dots (e.g., in the air, or on their lap), do not correct them.

Scoring: One point for each correct box. **Correct** answers on *all forms* are:

Top left **10** Top right **8**
Bottom left **7** Bottom right **9**

Visuospatial – Cube counting: Score 0-4

Administration: Ask the person “How many cubes are in each structure, including the ones you may not be able to see?” Progress from left to right and top to bottom to move through the cube structures. All structures should be attempted. If they do not understand the instructions or ask for clarification, please only repeat the instructions verbatim.

Scoring: one point for each correct answer. **Correct** answers are:

Form A: top left **5**, top right **6**, bottom left **10** and bottom right **7**
Form B: top left **5**, top right **6**, bottom left **10** and bottom right **7**
Form C: top left **5**, top right **6**, bottom left **8** and bottom right **7** (note bottom left differs from prior Forms)

Visuospatial – Number location: Score 0-4

Administration: Ask the person “Which number corresponds to the position of the dot?” Progress from left to right and top to bottom to move through the squares. All squares should be attempted. If participants fail to understand the instructions, you may clarify the instructions by saying “if you were to lift the bottom box and place it over the top box, which number would the dot cover?”

Scoring: One point for each correct answer. **Correct** answers are:

Form A: top left **6**, top right **5**, bottom left **2**, bottom right **3**.

Form B: top left 7, top right 8, bottom left 4, bottom right 3.

Form C: top left 1, top right 8, bottom left 5, bottom right 7.

Executive – Sentence completion: Score 0-12

Administration: Say “Listen carefully to these sentences and as soon as I have finished reading them, please tell me, or write, a word that finishes the sentence as quickly as possible.” For example, ‘She was so tired that she went straight to...bed’. Do not score the first two questions. Now say: “I’d like you to do that again, but this time the word you give should not make sense whatsoever in the context of the sentence. It must not be related to the word that actually completes the sentence. For example, ‘John cut his hand with the sharp...orange’. If the participant answers with a word which completes the sentence in context then remind them that the requirement is to provide an answer that bears no significance to the context of the sentence. If the person does not respond within 20 seconds, move onto the next question. If an incorrect response is provided, only re-prompt the participant with instructions once (after the first error) during administration. If the participant immediately responds to the same prompt with another word, score only the initial response before the reminder and proceed to the next sentence. If a participant repeats a word from a prior trial score as incorrect and ask them not to repeat a word for the other sentences.

Scoring: Give 2 points for completely unconnected word, 1 for related word (e.g. associated or opposite meaning) and 0 for exact word. See table below for scoring examples. Note: sentences can be non-grammatical.

Form A:

	Item	2 points	1 point	0 points
1	The mailman knocked on the...	Car, potato...	Window, gate, mailbag...	Door
2	He brought his umbrella with him in case of...	Rubber, parachute...	Sunshine, wind, ice...	Rain
3	Sally spread her toast with butter and...	Earth, sand...	Cereal, egg, oranges...	Jam, Marmalade, Honey, Cheese, jelly
4	John went to the barber and got his hair...	Moon, table...	Washed, lengthened, singed...	Cut
5	She dived into the swimming...	Garden, swing...	Pond, bath, rock...	Pool
6	They all went to the local café for something to...	Jump, dance...	Do, play, buy...	Eat, drink.

Form B:

	Item	2 points	1 point	0 points
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1	She answered the phone because it was...	Purple, dangerous, sunny...	Silent, talking...	Ringling, buzzing...
2	The joke was so funny, he started to ...	Undress, walk, disappear...	Cry, snore, fall asleep...	Laugh, giggle, chuckle...
3	Daniel unlocked the door with a ...	Balloon, melon, spanner...	Hammer, penknife...	Key
4	The child cut paper with a pair of...	Shoes, glasses, bananas...	Hands, pliers...	Scissors, shears..
5	After months of practice, Lisa passed her driving...	Force, show, night...	Trial...	Test.
6	Simon ate his dinner with a knife and ...	Nose, paper, pencil...	Spade, shovel, toothpick...	Fork, spoon.

Form C:

	Item	2 points	1 point	0 points
1	Lisa went to the library to return some ...	Rice, worm, umbrella...	Videos, DVDs...	Books, magazines...
2	After her shower, she dried herself with a ...	Sandpaper, box, lipstick...	Water, mop...	Towel, sheet.
3	He put a teabag in his mug and boiled the ...	Petrol, spaghetti, orange juice...	Milk...	Kettle, water...
4	He studied medicine to become a ...	Plumber, engineer, carrot...	Researcher, nurse...	Doctor, psychiatrist, GP
5	The music started and everyone got up to...	Brush teeth, fly, cry...	Sit, sleep, shout, talk, yawn...	Dance, drink, go home...
6	John picked up the leash and took his dog for a...	Step class, cremation, flight...	Bath, swim, drive, game of football...	Walk, run...

Social Cognition – Part A

Administration: The first page contains six boxes each with four pictures in each corner.

Say: “You are going to see some pictures, one in each corner of a box. You have to choose which picture you like best. Either point to or say which picture you like best. Please respond as quickly as possible.” When guiding participants through the boxes, avoid pointing to any particular corner/picture.

Scoring: **Answers are recorded but not scored;** responses are used as information to support scoring in the next section.

Social Cognition – Part B: Score 0-12

Administration: Say: “You are going to see some pictures, one in each corner of a box. You have to choose which picture **does the face like best.** Either point to or say which **the face likes best.** Please respond as quickly as possible.” Progress through all questions even when incorrect answers are provided. Test instructions can be repeated exactly as written, but **DO NOT amend or add to the instructions for this test, for example, do not say ‘which is the face looking at’.** When guiding participants through the boxes, avoid pointing to any particular corner/picture.

Scoring: Two points for each correct response. Of the items not correctly identified, score 1 point if answer was NOT the item that participant picked as their own favorite in the previous section, score 0 points if the item WAS picked as their own favorite.

Memory – Delayed recall: Score 0-10

Administration: Say: “At the beginning of this interview, I read you a story. Tell me as much as you can remember from that story.” Time for recall is unlimited, until participants say that they can remember no more. Self-corrections are allowed; only the final answer is taken for scoring.

Scoring: Score 1 point for each acceptable response described in Intermediate Recall, see above tables. The percentage of memory retained is now calculated. Take the total score for **Delayed Memory and divide it by the Immediate Memory score, before multiplying this number by 100.** For example:

- With a Delayed Memory recall of 8 items, and an Immediate Memory Score of 9/10
- The percentage of retained memory is 89%.

Some participants may recall more at delay than immediate and the percentage will be displayed as being over 100%. **Use the conversion table provided in ECAS to derive scoring.**

Memory – Delayed recognition: Score 0-4

Administration: This test should only be done if the person failed to recall one or more items. If all the items were recalled, skip the test and score 4.

Otherwise, say: “Let’s see if you can remember anything more about that story. I will ask you some questions, please tell me if they are true or false”.

Scoring: Score 1 point for each correct answer; correct answers are marked in bold in this section. If the person gives a “don’t know” answer ask them to make a guess on True or False and score accordingly. **Use the conversion table provided in ECAS to derive final scoring for recognition section.**

SCORES

Language	Naming, Comprehension, Spelling	/28
Verbal Fluency	Fluency Letter S, Fluency Letter T	/24
Executive	Reverse Digit Span, Alternation, Sentence Completion, Social Cognition	/48
ALS-SPECIFIC:		/100
Memory	<i>Immediate recall, Delayed retention, Delayed recognition</i>	/24
Visuospatial	<i>Dot Counting, Cube Counting, Number Location</i>	/12
ALS NON-SPECIFIC:		/36
ECAS TOTAL SCORE		/136

CUT OFF SCORES FOR ABNORMALITY (BASED ON EDINBURGH NORMS):

ECAS TOTAL SCORE	105
ALS-SPECIFIC	77
ALS NON-SPECIFIC	24
Language	26
Verbal Fluency	14
Executive	33
Memory	13
Visuospatial	10

**ALS Caregiver Behavior Screen
Guidance and Administration
American English Version**

Guidance:

Please complete this interview with the carer or relative in private from the participant, ideally in a separate room. There are five components to this screen. Some people may have noticed a change in all areas, some in a few, and others may note there are no changes with the participant. Please ask the carer or relative to give any examples if possible, which should be recorded on the form. The ECAS Behavior Screen is interview based and should therefore be complete with the carer or relative. Please remind the informant that *symptoms may have been present before* or after the onset of ALS.

As indicated above, **under no circumstances should this form be given to the carer or relative to complete on their own.** In circumstances where an informant is not available please use the Alternative Behavior Checklist and Alternative Psychosis Checklist to collect data about behavior and psychosis.

Please note, however, that these alternative forms *may **not*** be used in the generation of ECAS scores and are for data collection purposes only.

Administration – Score 0-10

Please ask the informant about the listed possible behaviors. Symptoms should have occurred **repeatedly** and not just on one instance, and may have occurred prior to the development of any motor signs. Check 'Yes', 'No' or 'Don't Know'. If 'Yes', please provide a brief written description. Give one point for every 'Yes' response (maximum = 10).

**ALS – Psychosis Screen
Guidance and Administration
American English Version**

Guidance: Please ask the informant to complete this section away from the participant, ideally in another room. Please remind the informant that the questions asked are *only relevant since the onset of ALS*. If the answer is Yes to any question, please note any relevant examples or comments.

Administration- Score 0-3

Please ask the informant about the following possible symptoms. Check 'Yes', 'No' or 'Don't Know'. If 'Yes', please provide a brief written description. Give one point for every 'Yes' response (maximum = 3).