

Guidelines for the Westmead PTA scale

N.E.V. Marosszky, L. Ryan, E.A. Shores, J. Batchelor & J.E. Marosszky

Dept. of Rehabilitation Medicine, Westmead Hospital

Dept. of Psychology, Macquarie University

TEST EQUIPMENT

For PTA testing the following pieces of equipment are required: a pen; the **Westmead PTA Scale** MR-120 Form; and the set of 9 **Westmead PTA Scale** Picture Cards.

TEST ENVIRONMENT

Testing should ideally take place at the bedside in a quiet ward room. There should be no distractions like television, food or young children. In busy / noisy wards it may be easier to move the patient to a quiet area, if the patient is mobile. However, if this is not the case, pull the curtain around the bed and try to minimize noise and interruption for the duration of testing.

There should also be no obvious cues or aids like clocks or orientation boards nearby. These should be obscured during testing or surreptitiously removed before testing starts. (One also needs to prevent the patient looking at their watch during testing.)

WHEN TO START TESTING?

PTA testing begins when the patient has regained consciousness and can communicate intelligibly. (This is usually after the patient has been extubated.) Patients may be able to communicate via speech, writing, pointing to printed answers or by indicating 'yes' or 'no'. If communication cannot be carried out via speech, the **Westmead PTA Scale** can be modified to support these nonverbal patients (see [the Nonverbal Patients section](#)).

The ideal time to test a patient is when they are most alert. In general, we find this to be soon after the patient has had their bath and breakfast, however, for some extremely severe patients this may not be the case and another time will be required. One also needs to ascertain whether these patients can concentrate for the duration of testing.

When to stop testing

PTA testing stops when the patient has reached the Westmead **PTA Scale**'s operational definition for being out of PTA (i.e. achieving a perfect score of 12 on the Westmead **PTA Scale** for 3 consecutive days).

STANDARD PROCEDURES

The **Westmead PTA Scale** is a very simple and straightforward test. You just have to ask the questions in the order they appear on the form and then score them (examiners should be familiar with the procedures described in this manual before testing begins).

The hardest thing to learn about the scale is what to do when the patient does not spontaneously answer a question or says 'I don't know'. In this situation, all you have to do is repeat the question and give the patient 3 options to choose from. (*NB: Do not*

give the choice of 3 options if the patient has already given you a wrong answer.) These options must be in sequential order and the correct answer's position must vary for each question.

PTA QUESTIONS

A detailed breakdown of all the PTA questions and a guide for using the choice of 3 options procedure is provided on the following pages. Acceptable alternate versions for the PTA questions are also provided. There are only 2 possible reasons for giving these alternate versions: (1) the patient, for some reason, does not understand the question; or (2) the patient did not answer the question in the form that was required.

Question 1: HOW OLD ARE YOU ? The examiner must ask for clarification if the patient states, for example, that they will be '30 next year'. The acceptable alternatives are: 'So that makes you how old at the moment ?' or 'How old are you *now* ?'.

Question 2: WHAT IS YOUR DATE OF BIRTH ? If the patient has difficulty with the concept of 'date of birth', it is permissible to ask 'When is your birthday ?', and then follow with 'What year were you born in ?'.

Question 3: WHAT MONTH ARE WE IN ? For emphasis the examiner can ask what month are we in *now* ? The patient must name the month. For example, if the patient answers 'the 6th month', the examiner must ask the further question 'What is the 6th month called ?'.

Question 4: WHAT TIME OF DAY IS IT ? (MORNING, AFTERNOON OR NIGHT) The patient should answer with one of the 3 choices given in the question.

Question 5: WHAT DAY OF THE WEEK IS IT ? The examiner may add for the sake of emphasis 'What day of the week is it *today* ?'.

Question 6: WHAT YEAR ARE WE IN ? It is considered correct for patients to answer in the short form '95', instead of '1995'. Also, an acceptable alternative prompt (for the rest of the 1990s) is 'The year is 19 what ?'.

Question 7: WHAT IS THE NAME OF THIS PLACE ? The patient has to be able to give the name of the hospital. For example: Westmead Hospital. They do not get credit if they just say 'hospital.' If the patient can not name the hospital, give them a choice of 3 options. To do this pick 2 other similar sized hospitals in your local area or neighbouring region. In Westmead Hospital's case the 3 choices are 'Nepean Hospital, Westmead Hospital or Liverpool Hospital'. If the patient does not spontaneously answer the question, the examiner should re-ask the question and say 'Are you at home, a hospital or a hotel ?'. If the patient correctly answers this first part, follow with the question: 'What is the name of this hospital ?'. (Do not ask this question if the patient said 'home' or 'hotel'.) If the patient cannot spontaneously answer give them the choice of 3 options, 'Is it Nepean Hospital, Westmead Hospital or Liverpool Hospital ?'. (NB: *The patient must answer both parts of this question correctly to score 1 point.*)

The remaining questions are asked on the second day of testing and then every day thereafter.

Question 8: HAVE YOU SEEN MY FACE BEFORE ? All this question requires is a simple yes / no answer. An acceptable alternative is 'Have you seen me before ?'. Even if the patient answers 'no' to this question, you should still ask Question 9.

Question 9: WHAT IS MY NAME ? If the patient fails to respond spontaneously a choice of 3 names is given. They should start with the same letter and have the same number of vowels. For example: 'Lisa, Linda or Lesley'.

Question 10: WHAT WERE THE 3 PICTURES THAT I SHOWED YOU YESTERDAY ? If the patient cannot spontaneously recall the picture cards, there are 2 acceptable presentation modes: (1) Showing all 9 cards to the patient, one at a time; or (2) Laying all 9 cards out on a table. In both cases the patient must pick the 3 target cards either by saying 'yes' / 'no' or by pointing. The patient may also spontaneously recall 1 or 2 cards and then need to use one of these presentation modes to pick the remaining target cards. Score 1 point for each card that is correct. *(NB: The position in which the cards are placed or presented should vary each day.)*

SCORING & PICTURE CARDS

Record the patient's answer in the box provided on the MR-120 Form and score 1 for correct and 0 for incorrect in the box underneath. This is done so that an exact record is kept of what the patient has said. (Perhaps a pattern may emerge if a patient continually gets an item wrong.) Remember that no half marks can be given. When a patient does not spontaneously answer a question (i.e. when a choice of 3 options is given for a question or when one of the 2 presentation modes for the picture cards is given) place an asterisk next to the answer box. This will show that this question was administered differently from the others. *(NB: It has no bearing on how you score the question.)*

PICTURE CARDS

The other important rule you have to know is that when the patient scores 12 out of 12 you *must* change the picture cards. You can pick the cards for the patient, or, as some examiners do, turn the cards over (blank side up) and let the patient pick the 3 cards. Record the new cards and the date they were chosen on the MR-120 Form. (A set of cards is regarded as different from the previous set if at least one of the cards is changed. If the patient or examiner manages to again pick the same 3 cards they must pick all the cards again.)

REHEARSING WITH THE PATIENT

At the end of testing you need to rehearse with the patient. That is, before leaving the patient you must correct their mistakes, tell them what they have to remember for tomorrow and check whether they have encoded it properly. Step 1 is to go through the incorrect items with the patient e.g. 'John you got a couple of items wrong: today is Monday; and it is morning.' Step 2 is to remind the patient what they have to remember for tomorrow. (This is also the time to introduce the patient to the new picture cards if they have scored 12 out of 12.) Show the 3 picture cards and go through them with the patient. Then say, 'John I will be coming to see you tomorrow and I want you to remember my name - Lesley - and the 3 pictures I have shown you - Bird, Flower and Cup.' Step 3 is to check whether the patient has encoded the memory items properly. To do this you need to distract the patient for 1 to 2 minutes with some idle conversation e.g. 'What is your favorite TV show ?', 'What is your favorite sport ?' or 'What did you have for breakfast, lunch or dinner ?'. Then ask the patient what they have to remember for tomorrow. Tell the patient whether they were right or wrong and correct any mistakes. Then prior to leaving, show the patient the 3 picture cards again and say,

'John, I want you to remember my name - Lesley - and the 3 pictures I have shown you - Bird, Flower and Cup.'

NONVERBAL PATIENTS

Nonverbal patients present a particular challenge to the users of the **Westmead PTA Scale**. The examiner requires some skill and patience.

To test nonverbal patients reliably they need to be able to do one of the following:

1. Consistently and accurately indicate yes / no to all questions (i.e. by head shaking or hand gestures).
2. Produce legible writing, or be able to use a keyboard, an alphabet board or other augmentative communication device (consult with the Speech Pathologist).
3. Have sufficient upper limb control to point / indicate the correct answer from 3 options presented on either a white board, a large piece of paper or a series of cardboard cards (like flash cards). The size of the print on the white board / paper / cards used will be determined by the degree of accuracy of movement over which the patient has control.

These communicate modes can be used to break the nonverbal patients into 3 groups:

Group 1 - ADMINISTERING THE WESTMEAD PTA SCALE TO A PATIENT WHO CAN ONLY INDICATE YES OR NO

It should be noted that PTA testing by this method is a relatively slow process; the length of the patient's concentration span will also determine if this is a worthwhile exercise (be aware that the patient may fatigue).

Basically, the examiner is required to present 3 options for all questions, and the patient needs to indicate yes or no appropriately to each of the options as presented.

Questions 1, 3, 4, 5, 6 and 9 follow this step by step response process, using the choice of 3 options rules as outlined in the PTA Questions section (i.e. the options must be in sequential order and the correct answer's position must vary for each question). Question 8 is already in a yes / no format, whereas Questions 2 and 7 need to be broken up into their component parts.

Question 2 is asked in 3 parts. If the patient's D.O.B. is 19/11/64. The examiner first asks the patient 'Were you born on the 18th, the 19th or the 20th of the month?'. For the patient to be correct they would need to indicate, after each part: 'no', 'yes', 'no'. The examiner then asks 'Is your birthday in September, October or November?', to which they should respond: 'no', 'no', 'yes'. The last question to the patient is 'Were you born in 1964, 1965 or 1966?', where the patient would then need to respond: 'yes', 'no', 'no'. The patient needs to get all 3 parts of their D.O.B. correct to score 1 point.

Question 7 needs to be broken up into its 2 parts. 'What is the name of this place ? Is it your home, a hotel or a hospital ?' If hospital is answered then you must ask, 'What is the name of this hospital - Nepean Hospital, or Westmead Hospital, or Liverpool Hospital ?' The patient must get both parts correct to score 1 point.

The picture cards should be presented as in presentation mode 1 (see the PTA Questions section). The patient is shown all 9 cards one at a time and asked to indicate the 3 target cards by saying 'yes' or 'no' to each card, e.g. 'Is this one of the pictures I asked you to remember yes or no?' Score 1 point for each card that is correct.

Group 2-ADMINISTERING THE *WESTMEAD PTA SCALE* TO PATIENTS WHO CAN USE WRITING OR A COMMUNICATION DEVICE TO INDICATE CHOICE

Administer the scale as if in speech mode, however, you will get the answers via paper or a communication device. (A pen and some paper is required, or a communication device may be used. Contact the Speech Pathologist for further advice.) If the patient's writing is too hard to read or the communication device is too time consuming, use the pointing to items option that is presented on the following page.

Group 3-ADMINISTERING THE *WESTMEAD PTA SCALE* TO PATIENTS WHO CAN USE ARM MOVEMENT TO INDICATE CHOICE

For these patients, the 3 options that the patient is to pick from are written down on a white board, large piece of paper or flash cards (cardboard cut-out answers). The patient is then asked to point to the correct answer. The examiner can have the questions ready or write them as they go. (If you are using flash cards, these should be prepared before each session.) The picture cards should be presented as in presentation mode 2 (see the PTA Questions section). All 9 cards are spread out in front of the patient and they are asked to point to or pick up the 3 pictures they had to remember from yesterday. (A white board, large sheet of paper or flash cards, as well as a marker and a small table are required for this procedure.)

Please note: In this communication mode, the examiner should avoid eye contact and be aware of any body language so as not to give any cues to the patient.

If used, these nonverbal procedures should be briefly described in the patient's medical record as well as noted on the MR-120 Form (make a brief note under the total score line). Any changes in procedures should also be noted, for example, when procedures change from nonverbal to verbal administration.

Perseverating patient

The examiner may find that a patient always answers 'Monday' to Question 5 (or they may answer 'Monday' to every question). In this situation, the examiner should ask the patient to think hard and repeat the question using the choice of 3 options procedure (see PTA Questions section). *NB: The 3 options should not include the perseveration response.* This restatement of the question might help change the patient's mind-set, although they still may not get the question right. This issue highlights the fact that not only does the PTA score represent the actual response of the patient, but it also represents the best response of the patient for that particular test occasion (i.e. every opportunity was given to the patient to answer correctly). To some extent use of this procedure is up to the discretion of the examiner (the same applies when a patient makes a slip of the tongue). However, this discretion should be used sparingly as some may argue that the only reason a patient answered an item correctly was because they were given 'two bites of the cherry'. If the patient continually requires this procedure to get an item right, it should be discussed with the Clinical Neuropsychologist and reported in the notes.

NON-ENGLISH SPEAKING PATIENTS

For patients who cannot speak English, testing should be conducted via an interpreter. (If one is available, a professional interpreter is recommended.) The interpreter should be instructed to relay the questions and answers in a simple and objective manner which offers no extra help to the patient. The PTA examiner, who is alongside the interpreter, records whether the patient answered the questions correctly or incorrectly. Then as usual the interpreter goes through what has to be remembered for tomorrow. (NB: When reporting these scores in the medical record one must acknowledge the use of an interpreter.)

AGITATED PATIENTS

Dealing with agitated patients who are aggressive and prone to wander is difficult as they cannot settle even for a short PTA test. In these cases, every effort should be made to assess the patient as the agitation may be a symptom of the post-traumatic amnesia. Suggested strategies include: (1) using other staff members to help settle the patient while testing takes place; (2) testing in an environment which has no distractions; (3) stressing to the patient that testing must be done every day and will only take a few minutes; (4) correcting the patient's answers only after all questions have been given; (5) and using praise and positive rewards for good behavior.

Borderline PTA

Borderline patients provide another interesting challenge for examiners. These patients consistently score 10, 11, 12 for a week or two without meeting the scale's criteria. Clinically other team members are saying that the patient has improved. (This may or may not be the case.) In this situation, one should consult with the Clinical Neuropsychologist.