

**POST TRAUMATIC AMNESIA SCALE (A-WPTAS) TESTING IN THE EMERGENCY
DEPARTMENT – PROTOCOL FOR ABBREVIATED WESTMEAD**

Cross References (including NSW Health/ SESLHD policy directives)	SGSHHS CLIN 155 Post Traumatic Amnesia (PTA) Testing - Protocol for
1. What it is	The purpose of this business rule is to provide evidence based guidelines for the testing of patients with a closed head injury within the Emergency Department (ED) in the SGSHHS.
2. Risk Rating	Low
3. Employees it Applies to	All nurses, medical officers and occupational therapists caring for a patient with a closed head injury.

4. Process

4.1 Overview

Mild Traumatic Brain Injury (MTBI) accounts for 70-90% of all head injured patients,² and the ED is the primary point of medical contact for these patients. Post traumatic amnesia (PTA) 'is the period of time during which a person is disorientated or confused and unable to recall new information following a head injury'.⁵ It is recommended that patients presenting to the ED, following a mild closed head injury, complete an abbreviated version of the PTA scale entitled the A-WPTAS.^{1,2,5}

The A-WPTAS is endorsed by the college of emergency medicine and the use of A-WPTAS in the ED provides support for clinical decision making, further evidence in the consideration for CT scanning, and reduced length of stay for patients post MTBI.

A-WPTAS testing will primarily be undertaken in the ED. It can also be undertaken in the ward environment for continuing assessment of patients admitted from the ED or used in the assessment of patients sustaining a head injury from an in-hospital fall.

A flowchart for ED management of patients with mild head injury may be accessed from http://development.aci.health.nsw.gov.au/_data/assets/pdf_file/0006/195153/Closed_Head_Injury_CPG_2nd_Ed_Algorithm_2.pdf

4.2 Criteria for A-WPTAS testing:

Eligible patients are those with a history of a blunt head injury and must meet the following criteria:

- Closed head injury within 24hrs of presentation
- Glasgow Coma Scale (GCS) of 13-15
- Opening eyes spontaneously (GCS eyes score 4)
- Obeying commands (GCS motor score 6)

Patients fitting the above criteria will have an A-WPTAS commenced which also incorporates the routine GCS screening as part of their normal vital signs. The A-WPTAS is to be documented on the NSW Health A-WPTAS form (SMR060.950).

Note: The patient must be able to communicate via speech, writing, pointing to printed answers or by indicating “yes” or “no” when prompted. An interpreter can be used in accordance with SESLHD policy and procedure.

Signs of blunt head injury may include, but are not limited to:

- Patchy recall of events, anterograde or retrograde amnesia
- Loss of consciousness at the scene
- Persistent abnormal alertness/behavior/cognition
- Dangerous mechanisms
- Mild nausea or single episode of vomiting
- Mild headache

4.3 Exclusion Criteria:

- Age < 8 years or > 70 years*
- Known intracranial injury or neurological impairment e.g. dementia, subdural haemorrhage
- presentations >24hrs post traumatic head injury
- patients with GCS <13

*AWPTAS has been validated for those aged 18-61yrs and clinical judgement recommended for use outside this age range.

Patients under the influence of alcohol or drugs can have A-WPTAS testing completed if they meet the inclusion criteria, are compliant with assessment and can communicate intelligibly <24 hours from time of injury. Intoxicated patients with a head injury require thorough clinical assessment if they score < 18/18 traumatic brain injury must be excluded.

Those presenting greater than 24hrs post injury should have neurological observations attended on the ED standard observation chart and referred for formal PTA testing if required.

4.4 A-WPTAS Testing Process:

Provide a quiet environment to conduct the assessment with minimal distractions e.g. ask family members to wait outside and pull the curtains. Ensure possible visual clues, such as electronic devices, are placed away during testing. Instructions for completing A-WPTAS testing are provided below, guidance is also provided on page 3 of the A-WPTAS form.

Step 1: Glasgow Coma Scale (GCS) Assessment

- Assess patient eye opening and motor response. The patient must open their eyes spontaneously and obey commands to be suitable for commencement of A-WPTAS testing.
- Assess verbal response (orientation questions): Patient must correctly answer all five questions to achieve a score of 5/5 for verbal response. Questions and appropriate response guidelines are provided on page 3 of A-WPTAS form
- Assess limb strength and pupil response and document on A-WPTAS form.

Step 2: Picture Recognition

- Show the patient 3 x picture cards (Page 1) of A-WPTAS form and ensure they can repeat the names of each picture (cup, keys, bird). Inform the patient that they are required to remember the pictures when asked in one hour.
- It is necessary to ensure the images are encoded in memory. To do this, provide a brief delay, engage in conversation/ complete paperwork then ask 'Do you recall the pictures that you need to remember in an hour?' If they have difficulty or cannot recall, show and revise the pictures before leaving the bed space.



Step 3: Hourly Assessment

- Return to the patient one hour post initial assessment repeat Step 1 (GCS).
- Ask the patient to recall the 3 pictures shown the previous hour. If they are unable recall, they can be prompted by showing the 9 pictures (Page 4 of A-WPTAS form) and ask them to identify the three pictures shown.
- If patient fails to recall pictures after prompting repeat Step 2.

4.6 Documentation

Scoring the results

- First assessment, calculate GCS out of **15**, patient must achieve 5/5 for orientation questions to score 5.
- Subsequent assessments calculate GCS **(A)** and score for picture cards **(B)** to obtain score out of **18**.
- For orientation question and picture response, score **1** for each correct answer and **0** for incorrect.
- If the patient required prompts, mark an asterisk in the score section e.g. **1*** or **0***

TOTAL GCS SCORE (A)				
Picture Recognition	Picture 1 - Cup	Show 3 pics		
	Picture 2 - Keys			
	Picture 3 - Bird			
TOTAL PICTURE RECOGNITION SCORE (B)				
TOTAL A-WPTAS SCORE (A+B)				

Repeat steps **1 and 3** until the patient has recorded 18/18 or until 4 consecutive hours of testing have been completed. Failure to score 18/18 within 4 hours requires referral for formal PTA testing.

A-WPTAS testing should be discontinued if CT imaging demonstrates intracranial injury e.g. subdural haemorrhage. Patient referred for formal PTA testing regardless of A-WPTAS results.

Document A-WPTAS assessment and results in the patient's medical record.

4.7 Deterioration in Clinical Condition - A-WPTAS Testing

If GCS/ A-WPTAS drops by >2 or more points consult senior medical staff.

A low threshold should be taken in considering early transfer for CT scanning if:

- Persistent GCS < 15 at 2 hours post injury
- Deterioration in GCS
- Focal neurological deficit
- Clinical suspicion of skull fracture
- Persistent abnormal mental status (either clinical, A-WPTAS or GCS) or persistent vomiting or severe headache at 4 hours post time of injury

4.8 Admission criteria

- A-WPTAS score <18 at 4 hours post time of injury
- Initial GCS 9-12
- Persistent GCS 13
- Clinical deterioration
- Clinically not improving
- Abnormal CT scan
- Multiple injuries

Early discharge after admission will be at the discretion of the Neurosurgical Service

4.9 Discharge from ED

Clinically safe for discharge for home observation if at 4 hours post time of injury:

- GCS score 15/15
- A-WPTAS score 18/18
- Normal alertness/behaviour/cognition
- Clinically improving after observation
- Normal CT scan or no indication for CT scan
- Clinical judgement required if elderly and/or known coagulopathy due to increased risk of delayed subdural haematoma
- Anyone suitable for home observation is to be discharged with a responsible adult

Discharge advice

- Provide both verbal and written patient [head injury discharge advice](#). Head injury advice for other languages is available via the [Motor Accidents Authority](#) website.
- Provide discharge summary for GP
- All patients should be advised to see their GP if they are not feeling back to normal within 2-3 days
- Any patient with a documented abnormal A-WPTAS score or who suffered significant clinical symptoms such as headache, nausea or dizziness should be routinely referred to their GP for follow up within 2-3 days and strongly encouraged to do so
- Advice to return to ED / Follow-up with LMO if any concerns

4.10 Re-presentation

If the patient re-presents to medical services, the following should be conducted:

- Full re-assessment
- A-WPTAS assessment
- CT scan, if indicated, particularly if not performed at the first presentation
- Emphasis and encouragement to patient to attend their GP for follow-up after discharge

5. Keywords	Post Traumatic Amnesia, Closed Head Injury
6. Functional Group	Trauma Service
7. External References	<ol style="list-style-type: none"> 1. Meares etal (2011) Validation of the Abbreviated Westmead Post-traumatic Amnesia Scale: A brief measure to identify acute cognitive impairment in mild traumatic brain injury. <i>Brain Injury</i> 25(12); 1198-1205 2. Reed, D., <i>Adult Trauma Clinical Practice Guidelines, Initial Management of Closed Head Injury in Adults</i>, ed. NSW Institute of Trauma Injury Management. 2007, Sydney. 3. Shores, E.A., Lammel, A., Hullick, C., Sheedy, J., Flynn, M., Levick, W., Batchelor, J., The diagnostic accuracy of the Revised Westmead PTA Scale as an adjunct to the Glasgow Coma Scale in the early identification of cognitive impairment in patients with mild traumatic brain injury. <i>Journal of Neurology, Neurosurgery and Psychiatry</i>, 2008. Epub ahead of print (January 25). 4. http://psy.mq.edu.au/pta/ 5. http://www.ecinsw.com.au/awptas
8. Implementation and Evaluation Plan Including education, training, clinical notes audit, knowledge evaluation audit etc	<ul style="list-style-type: none"> • Education will be provided to Emergency nursing and medical staff regarding the indication for AWPTAS testing. • ED nursing staff will be provided with education and training on the how to undertake AWPTAS testing • A-WPTAS records will be kept with patient's notes for review and evaluation. Trauma case managers can use the A- WPTAS to evaluate patient length of stay and outcomes in real time with this tool.
9. Knowledge Evaluation	<p>Q1. List 3 inclusion criteria of A-WPTAS testing in patients with a closed head injury?</p> <ul style="list-style-type: none"> ○ Amnesia or patch recall of events ○ GCS 13-15 in 24hrs post injury ○ Documented/ reported LOC on scene <p>Q2. When is a Patient considered clear from PTA?</p> <p>A. A patient is clear from PTA upon scoring 18/18</p> <p>Q3. What should be given to patients discharged form ED following closed head injury?</p> <p>A. Both written and verbal closed head injury advice</p>
10. Who is Responsible	Director of Emergency Department

Approval for: POST TRAUMATIC AMNESIA SCALE (A-WPTAS) TESTING IN THE EMERGENCY DEPARTMENT – PROTOCOL FOR ABBREVIATED WESTMEAD	
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Revision and Approval History

Date	Revision number	Author (Position)	Revision due
Sept 2011	0	Kate Curtis, CNC Trauma, SGH	Sept 2014
Nov 2014	1	Kate Curtis, CNC Trauma, SGH	Nov 2017

Director of Operations Ratification	
Cath Whitehurst	November 2014