

# 4AT - Screening for Delirium & Cognitive Impairment

## MR-4AT

Affix patient identification label in this box

UR No: .....

Surname: .....

Given Name: .....

Second Given Name: .....

D.O.B: ..... Sex: .....

The 4AT is a screening instrument designed for rapid initial assessment of delirium and cognitive impairment.

**INSTRUCTIONS** – Complete this screen:

- for all people over 65 (all over 45 ATSI) or all with known predisposing factors and all with known related conditions.
- as part of routine risk screening on presentation or admission (within 2 hours if there are behavioural or cognitive issues evident, or 8 hours if not).
- re-screen if new behaviour or cognitive issues become evident or change significantly.

4AT scoring instructions are overleaf	SCORE	SCORE	SCORE	SCORE	SCORE	SCORE
<b>[1] ALERTNESS</b> Normal (fully alert, but not agitated, throughout assessment) <b>0</b> Mild sleepiness for < 10 seconds after waking, then normal <b>0</b> Clearly abnormal <b>4</b>						
<b>[2] AMT4</b> <i>Ask the person to tell you their age, date of birth, place (name of the hospital or building), current year.</i> No mistakes <b>0</b> 1 mistake <b>1</b> 2 or more mistakes/untestable <b>2</b>						
<b>[3] ATTENTION</b> <i>Ask the person to tell you the months of the year backwards</i> Achieves 7 months or more correct <b>0</b> Starts but scores < 7 months / refuses to start <b>1</b> Untestable (cannot start because unwell, drowsy, inattentive) <b>2</b>						
<b>[4] ACUTE CHANGE OR FLUCTUATING COURSE</b> No <b>0</b> Yes <b>4</b>						
<b>TOTAL SCORE</b> ( <i>scoring notes overleaf</i> ) <b>4 or above:</b> possible delirium +/- cognitive impairment <b>1-3:</b> possible cognitive impairment <b>0:</b> delirium or severe cognitive impairment unlikely (but delirium still possible if [4] information incomplete)						
<b>ACTIONS for score of 1 or more (tick all applicable)</b>						
If score is 4 or more, arrange urgent medical review and further cognitive assessment.						
Complete Top 5 tool (or equivalent)						
Commence chart for mental state / behaviour						
Monitor vital signs (appropriate RDR chart)						
Increase supervision and document frequency on care plan						
Ensure cognitive impairment is included in all clinical handover with alerts for increased risk of delirium and falls						
DATE						
TIME						
NAME						
SIGNATURE						
DESIGNATION						



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## MR-4AT

### CARE PLANNING, COMMUNICATION AND TEAMWORK

- Ensure care plan is current, effective and meets patient and family needs
- Use charts as required for other monitoring eg sleep, nutrition / hydration

### HOW TO PREVENT DELIRIUM

Promote	Minimise	Set up safe environment
<ul style="list-style-type: none"> <li>• comfort and pain management (use PAIN-AD scale)</li> <li>• rest and sleep (non-drug techniques)</li> <li>• blood glucose management</li> <li>• eating and drinking (prompt and assist)</li> <li>• safe mobility and daily routine activities</li> <li>• bladder and bowel management</li> <li>• orientation, mental stimulation, reassurance, meaningful activities</li> <li>• use of hearing aids, spectacles</li> </ul>	<ul style="list-style-type: none"> <li>• hypoxia</li> <li>• use of indwelling catheter</li> <li>• use of night sedation</li> <li>• polypharmacy</li> <li>• abnormal metabolites</li> <li>• effects of alcohol withdrawal</li> </ul>	<ul style="list-style-type: none"> <li>• Signs for toilet / shower</li> <li>• Clock, calendar, signs</li> <li>• Reduce clutter and excessive noise</li> <li>• Reduce bed moves / relocations</li> </ul>
	<b>Use effective communication techniques with patient</b> <ul style="list-style-type: none"> <li>• Introduce yourself and make eye contact</li> <li>• Be calm and empathetic</li> <li>• Use short sentences and one instruction at a time</li> <li>• Offer few choices</li> <li>• Repeat yourself</li> <li>• Use interpreters, cue cards and / or ATSI liaison person</li> <li>• Be aware of how you may be perceived</li> <li>• Use information about the person (eg Top 5) to develop rapport</li> </ul>	

### GUIDANCE NOTES FOR SCORING 4AT

A MacLulich, T Ryan, H Cash 2011 Edinburgh Delirium Research Group [www.the4AT.com](http://www.the4AT.com)

The tester should take account of communication difficulties (hearing impairment, dysphasia, lack of common language) when carrying out the test and interpreting the score.

**Items 1-3** are rated *solely on observation of the patient at the time of assessment*.

**Item 4** requires information from one or more source(s), e.g. your own knowledge of the patient, other staff who know the patient (e.g. ward nurses), GP letter, case notes, carers.

**Alertness:** Altered level of alertness is very likely to be delirium in general hospital settings. If the patient shows significant altered alertness during the bedside assessment, score 4 for this item.

**AMT4 (Abbreviated Mental Test - 4).**

**Acute Change or Fluctuating Course:** Fluctuation can occur without delirium in some cases of dementia, but marked fluctuation usually indicates delirium. To help elicit any hallucinations and/or paranoid thoughts ask the patient additional questions such as, "Are you concerned about anything going on here?"; "Do you feel frightened by anything or anyone?"; "Have you been seeing or hearing anything unusual?"

### CAUSES OF COGNITIVE IMPAIRMENT IN OLDER PEOPLE

The most common is dementia. Other possible diagnoses include:

- Delirium
- Psychiatric illness eg, depression
- Adverse drug effects (especially with anticholinergic and antihistamines)
- Metabolic (eg, hypothyroidism)
- Structural brain disease or injury (eg, stroke, head injury, tumour, epilepsy)
- Intellectual impairment

Predisposing factors for delirium	Precipitating factors for delirium
<ul style="list-style-type: none"> <li>• Age &gt; 70</li> <li>• Pre-existing dementia</li> <li>• Severe medical illness, e.g. infection</li> <li>• Neurological causes e.g. brain injury, stroke</li> <li>• History of previous delirium</li> <li>• Visual and hearing impairment</li> <li>• Depression</li> <li>• Abnormal sodium, potassium and glucose</li> <li>• Polypharmacy</li> <li>• Alcohol/Benzodiazepine use</li> </ul>	<ul style="list-style-type: none"> <li>• Use of physical restraint</li> <li>• Use of indwelling catheter</li> <li>• Adding three or more medications</li> <li>• Multiple bed moves</li> <li>• Pain</li> <li>• Surgery (cardiac, hip fracture and other lengthy surgery)</li> <li>• Anaesthesia and hypoxia</li> <li>• Malnutrition and dehydration</li> </ul>