

Management of delirium on the MAU

Aims of these guidelines

These guidelines are intended to provide practical guidance for medical and nursing staff on MAU, to improve patient care. We have endeavoured to incorporate what evidence exists. The assessment pages are intended for inclusion in clinical notes.

They are *not* intended to be used to management of patients with delirium due to alcohol withdrawal or the effects of drugs of abuse.

Background

- Delirium is common - up to 40% elderly patients admitted to hospital – but also frequently (up to 50% cases) unrecognised.
- Delirium doubles the death rate in patients > 65 years: in hospital mortality rises from 6 to 11%; there is higher mortality at 1 and 6 months too.
- Delirium is associated with an increased length of stay in hospital: 21 vs 9 days.
- Delirium is associated with a greater need for institutional care at 1 month (47 vs 18%, 95% CI for difference 23 to 34%) and patient who are discharged after delirium are more likely to be readmitted (OR 2.05, 95% CI 1.2 to 3.5).
- For the patient, delirium is associated with loss of dignity, as well as increased morbidity and mortality.

- Patients with delirium can be disruptive for staff and other patients.

Scope

- Definition of delirium.
- Prevention of delirium & elimination/reduction of risk factors for the development of delirium.
- Screening for delirium.
- Further assessment to undertake if screen positive.
- Non-pharmacological management of delirium.
- Drug treatment.
- Indications for referral to liaison psychogeriatrician.
- Treating patients against their will.

Definition

Delirium is characterised by a disturbance of consciousness and a change in cognition that develop over a short period of time. The disorder has a tendency to fluctuate during the course of the day, and there is evidence from the history, examination or investigations that the delirium is a direct consequence of a general medical condition, drug withdrawal or intoxication (DSM IV).

In order to make a diagnosis of delirium, a patient must show each of the features 1-4 listed below:

1. Disturbance of consciousness (i.e. reduced clarity of awareness of the environment) with reduced ability to focus, sustain or shift attention.
2. A change in cognition (such as memory deficit, disorientation, and language disturbance) or the development of a perceptual disturbance that is not better accounted for by a pre-existing or evolving dementia.
3. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
4. There is evidence from the history, physical examination, or laboratory findings that the disturbance is caused by the direct physiological consequences of a general medical condition, substance intoxication or substance withdrawal.

Delirium may have more than one causal factor (i.e. multiple aetiologies). A diagnosis of delirium can also be made when there is insufficient evidence to support criterion 4, if the clinical presentation is consistent with delirium, and the clinical features can not be attributed to any other diagnosis, for example delirium due to sensory deprivation.

Causes of delirium (precipitants)

This list gives some of the more common precipitants; **any acute illness and many medications can cause delirium.**

- Drugs (particularly those with anticholinergic side effects, eg antidepressants, antiparkinsonian drugs, sedatives, tramadol; polypharmacy is associated with a much increased risk of adverse drug reactions)
- Drug withdrawal (including alcohol)
- Infection (e.g. pneumonia, UTI)
- Neurological (e.g. stroke, subdural haematoma, epilepsy)
- Cardiological (e.g. myocardial infarction, heart failure)
- Respiratory (e.g. pulmonary embolus, hypoxia)
- Electrolyte imbalance (e.g. dehydration, renal failure)
- Endocrine & metabolic

Risk factors (predisposing factors)

- Age (delirium more likely with increasing age)
- Pre-existing cognitive deficit
- Psychiatric illness
- Severe physical comorbidity
- Previous episode of delirium
- Deficits in hearing or vision (strongly associated with delirium, Odds Ratio 12.6)
- Chronic anticholinergic drug use
- A new environment and stress also increase the risk of delirium

Screening: identification

Every patient older than 65 who is admitted to the MAU should be screened.

Further assessment of patients is carried out if they have a “positive” screen.

The screen is positive if **any** of the following are true (tick those that are):

- Informant says that patient’s behaviour has changed in recent weeks.
- AMTS < 8 (NB *not* the usual threshold for AMTS).
- *Any* of 4 parts of CAM (confusion assessment method) true (NB *not* the usual way that CAM is used).
- History of dementia or delirium.
- Urea > 10mM.
- Uncorrected sensory impairment.

AMTS

Please follow scoring instructions.

A correct answer scores 1 mark. No half-marks are given.

	Question	Assessment	Rating
1	How old are you?	Score for exact age only	
2	What is your date of birth?	Only date and month needed	
3	What is the year now?	Score for exact year only	
4	What is the time of day?	Score if within 1hr of correct time	
5	Where are we? What is this building?	Score for exact place name e.g. “hospital” insufficient	
<i>Now ask subject to remember an address: 42, West Street</i>			
6	Who is the current monarch?	Score only current monarch	
7	What was the date of the 1st World War?	Score for year of start or finish	
8	Can you count down backwards from 20 to 1?	Score if no mistakes or any mistakes corrected spontaneously	
9	Can you tell me what those 2 people do for a living?	Score if recognises role of 2 people correctly e.g. Dr, nurse	
10	Can you remember the address I gave you?	Score for exact recall only	
Total			/10

CAM

Present?

Acute onset and fluctuating course - onset is hours to days, lucid periods often in morning.

Inattention - easily distracted, attention wanders in conversation.

Disorganised thinking - cannot maintain a coherent stream of thought.

Altered level of consciousness - drowsy / over active fluctuation, nightmares / hallucinations.

Assessment of patients with positive screen for delirium

The history should be corroborated by relative / carer.

The chart indicates primary responsibility for each area but nurses or doctors can complete any section.

History - Nursing

	Patient	Informant
Previous intellectual function (e.g. managing household affairs)		
Functional status Does all own cooking Does snacks / drinks Does no meals or drinks Mobility inside Mobility outside Transfers: Chair Bed Toilet		
Onset and course of confusion		
Previous episodes of acute or chronic confusion		
Sensory deficits Sight Hearing Speech		
Aids used		
Pre admission social circumstances and care package Personal care Shopping Cleaning Cooking Laundry Pension		
Safety at home		

History - Medical

	Patient	Informant
Drug history Full (including OTC) Any recent changes Antidepressants Antiparkinsonians Sedatives Tramadol Cimetidine		
Alcohol (Units / day)	CAGE	
Symptoms suggestive of underlying cause		
Other active illnesses		

Examination

(tick when done)**Nursing**

- Temperature
- BP & HR
- Pressure areas

Medical

- Chest
- Heart
- Neurology (GCS, focal signs, meningism)
- Abdomen (including renal and RUQ tenderness)
- State of hydration
- Hearing
- Vision
- Speech

Investigations

In *all* patients with new cognitive impairment (unless good reason not to):

- TTU
- Oxygen saturation
- U & Es, calcium, glucose
- FBC
- ECG
- CXR

In specific circumstances (**NOT** as “**routine**”):

- LFTs
- Cranial CT
- CSF

B12, folate and TFTs are needed in patients with *chronic* cognitive impairment but **NOT with acute cognitive impairment**.

Prevention and non-pharmacological management of delirium

The environmental measures used to treat delirium should also be used to try to prevent it in those at risk. The measures below are ideals that should be used to guide nursing actions.

Providing support and orientation

- Communicate clearly and concisely; give repeated verbal reminders of the (day, time, location, and identity of key individuals, such as members of the treatment team and relatives – use short sentences
- Provide clear signposts to patient's location including a clock, calendar chart with the day's schedule
- Have familiar objects from the patient's home in the room
- Ensure consistency in staff (for example, a key nurse).
- Make sure patient is aware who is looking after them (eg have name of named nurse in location they can see)
- Use television or radio for relaxation and to help the patient maintain contact with the outside world
- Involve family and caregivers to encourage feelings' of security and orientation
- Reduce fear and anxiety; approach and handle the patient carefully
- Avoid transfers between and within wards as much as possible
- Avoid physical restraints

Providing an unambiguous environment

- Simplify care area by removing unnecessary objects: allow adequate space between beds
- Consider using single rooms to aid rest and avoid extremes of sensory experience
- Avoid using medical jargon in patient's presence because it may encourage paranoia
- Ensure that lighting is adequate; provide a 40-60 W night light to reduce

misperceptions

- Control sources of excess noise (such as staff equipment, visitors); aim for <45 decibels in the day and <20 decibels at night
- Keep room temperature between 21.1°C to 23.8°C
- Avoid sudden noises
- Have nurse call system that can be used by visually impaired (e.g. fluorescent tape)

Maintaining competence

- **Identify and correct sensory impairments;** ensure patients have their glasses, hearing aid, dentures (and that they work). Use amplifier to aid hearing when needed.
- Consider whether interpreter is needed
- Encourage self care and participation in treatment (for example, have patient give feedback on pain)
- Arrange treatments to allow maximum periods of uninterrupted sleep
- Maintain activity levels: ambulatory patients should walk three times each day; non-ambulatory patients should undergo a full range of movements for 15 minutes three times each day
- Treat elimination / continence problems
- Carry out cognitively stimulating activities (need staff and space for this)
- Ensure drinks are within reach, make sure patient is aware they are they, make sure drink in suitable container for patient

Drug treatment of delirium

Do not forget to treat the underlying cause(s): delirium is usually a marker of an underlying illness.

Delirium may present as psychomotor retardation or agitation; drug treatment should be tailored to the individual patient rather than given as a routine for “delirium”.

The goals of drug treatment:

- Anxiolysis.
- Prevention of harm to patient (this would include making possible carrying out *essential* investigations or treatments).

The indications for drug treatment (when reassurance has failed):

- Disturbing / distressing hallucinations. For patients with distressing agitation or hallucinations the goal of immediate treatment is to relieve anxiety (rather than removal of hallucinations).
- Behaviour putting patient or others at risk (that cannot be controlled with environmental measures).
- Agitation distressing to the patient

Wandering and disorientation are NOT indications for drug treatment of delirium. *There is no drug that makes a wandering patient sit by their bed.* Drugs are not free from side effects; drugs that sedate may reduce agitation but increase cognitive impairment and increase the risk of falls.

The drug of choice is **lorazepam 0.5mg po**

Do not repeat within 30 minutes.

If oral treatment will not be taken lorazepam can be given iv (if there is already iv access) or im.

Do not give more than 2mg in 24 hours unless a registrar or more senior doctor has reviewed the patient.

Haloperidol should not be used because its risk benefit profile is less favourable.

Indications for referral to liaison psychiatry for old age

Referrals for review should be made in office hours.

Referral can be instigated by nursing or medical staff from MAU.

- Patient has required parenteral sedation.
- Persistent cognitive impairment.
- Been detained under 5(2) of MHA.
- Other concerns to senior MAU clinical staff (middle grade or consultant medical staff, F grade or more senior nurse) or member of RRAT.

Treating patients against their will

Not specific for delirium: if not competent and at immediate risk of significant harm can be treated against their will (at least in theory). Detention under MHA for the treatment of delirium and its cause is possible.