Delirium | Te mate kuawa

Signs and symptoms

Delirium is a common clinical syndrome characterised by:

- acute onset, hours to days, fluctuating throughout the course of the day
- decreased ability to maintain or shift attention
- changes in cognition or perception
- altered levels of consciousness.

There is frequently more than one aetiology. Not being able to find a cause for delirium does NOT change the diagnosis. The diagnosis is a clinical one.

Signs include:

- decreased ability to maintain and shift attention
- disorganised thinking and speech
- impaired memory (registration and recall)
- illusions, hallucinations (usually visual) and delusions (often persecutory)
- increased or decreased activity
- disrupted sleep–wake cycle
- disorientation in time and/or place
- changes in mood
- fluctuation is common, but typically worse at night.

Delirium charcteristics

Delirium is an acute fluctuating confusional state that can occur when someone is ill or injured

Delirium is regarded as acute brain failure, where a person's brain no longer functions as it usually would

Delirium is a potentially reversible medical emergency that warrants immediate attention

Prompt identification and assessment of delirium is needed so appropriate interventions can be implemented

Who is most at risk?

- Frailty
- Severe illness
- Previous delirium
- Age > 65
- Surgery/ trauma
- IV/IDC
- Hip fracture
- Cognitive impairment

While delirium is potentially reversible, undiagnosed or severe delirium, or delirium occurring in vulnerable people can often be prolonged, leading to permanent functional and cognitive decline.

Delirium is distressing for patients, families/whānau and carers, but with the right care many patients may make a full recovery.

Causes

Delirium may result from:

- illness – comorbidities
- infection
- medication changes or polypharmacy
- substance use/withdrawal
- pain
- immobility
- hypoxia or COPD CO_2 retention (O_2 worsens it)
- constipation/dehydration, urinary retention
- environment changes
- vulnerable brain, eg, underlying cognitive impairment/stroke/traumatic brain injury/seizures
- nearing end of life.

Medication examples that may worsen delirium

- Anticholinergic medication:
  - Oxybutynin
  - Amitriptyline
- Taking multiple drugs with anticholinergic effects increases risk
- Benzodiazepines and zopiclone
- Opioids
- Antipsychotics
- Steroids.

The following investigations are almost always indicated in patients with acute confusion to identify the underlying causes:

- Full blood count
- Calcium
- Electrolytes
- Liver function tests
- Glucose
- Thyroid function tests
- C-reactive protein
- B12/folate
- Urinalysis/MSU.

If possible and/or in an acute care environment:

- Chest X-ray
- ECG
- Blood cultures.

Other investigations may be indicated according to the findings from the history and examination:

- CT scan, eg, if focal neurological signs, confusion developing after head injury or fall, raised ICP
- Arterial blood gases
- Lumbar puncture (if meningism or headache and fever)
- Sputum.

Assessment		
Your assessment should include	• Pain assessment • Cardiac examination • Respiratory assessment	• Abdominal assessment • Nutrition/hydration status
Neurological	• Glasgow Coma Scale • GP cog or 6CIT • 4AT	• Consider using an interpreter for those who have English as a second language, and remember some patients will revert to first language when delirious
Medication Review all prescribed medicines	• Consider intoxications (measure levels) • Interactions	• Withdrawal (including alcohol) • Adverse reactions • Newly added or ceased medicines
Diagnostic tests and investigations	• All cases of delirium should be investigated as a matter of urgency, due to the considerable mortality and morbidity associated with this diagnosis	
Infective	• FBC • ESR	• CRP • Urinalysis
Metabolic screen	• Urea + electrolytes • Glucose • Liver function	• Creatinine • Calcium
Chest X-ray and ECG Review all prescribed medicines	• Consider intoxications (measure levels) • Interactions	• Withdrawal (including alcohol) • Adverse reactions
History and examination findings should guide the use of these more specific investigations		
Metabolic screen	• Magnesium • B12 • Thyroid function • ABGs	• Phosphate • Folate • Random cortisol
Infective	• Serology (HIV, HSV, syphilis)	• CSF analysis
Neurological	• EEG • MRI	• CT
Drugs	• Urinary drug screen	

4AT assessment test for delirium and cognitive impairment

	Test	Result	Score	
1	**Alertness** This includes patients who may be markedly drowsy (eg, difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask patient to state their name and address to assist rating	• Normal, fully alert but not agitated throughout assessment • Mild sleepiness < 10 seconds after waking, then normal • Clearly abnormal	0 0 4	☐ ☐ ☐
2	**AMT4** Age, date of birth, place (name of the hospital or building), current year	• No mistakes • One mistake • Two or more mistakes/untestable	0 1 2	☐ ☐ ☐
3	**Attention** Ask the patient: 'Please tell me the months of the year in backwards order, starting at December'. To help initial understanding, one prompt of 'What is the month before December?' is permitted	• Achieves 7 months or so • Starts but scores < 7 months or refuses to start • Untestable – cannot start because unwell, drowsy, inattentive	0 1 2	☐ ☐ ☐
4	**Acute change or fluctuating course** Evidence of significant change or fluctuation in: alertness, cognition, other mental function (eg, paranoia, hallucinations) arising over the past 2 weeks and still evident in past 24 hours	• Yes • No	4 0	☐ ☐
	4 or above: possible delirium +/– cognitive impairment 1–3: possible cognitive impairment 0: delirium or cognitive impairment unlikely but still possible		**4AT score**	

Nursing management considerations

Nursing management considerations will include ensuring family/whānau and carers receive an explanation of delirium and are included in management strategies where possible.

- Encourage families to bring in personal items and support with care as able.
- Provide a low stimulus, well-lit environment.
- Complete ABC behaviour chart.
- Place falls alarm near bed.
- Consider regular checks or constant observer.
- Manage modifiable risk factors.
- Mobilise, sit in chair for meals.
- Get up, get dressed, get moving.
- Monitor oral intake; aim fluid intake of > 1.2 L/24 hours unless otherwise indicated.
- Monitor bowels.
- Monitor pain; consider Abbey pain scale.
- Monitor skin integrity.
- Reduce catheter/line use where possible.
- Consider medication interactions/review.
- Monitor vital signs.

Consider non-pharmacological strategies, including:

- reorientation – clocks, calendars, newspapers
- look at natural lighting
- avoid multiple transfers within facility
- distraction – consider fiddle mitts/mats/photos/music etc
- keep communication simple – one-step instruction
- consider communication barriers, eg, level of comprehension/language
- maintain restoration of sleep–wake cycle patterns
- ensure visual/hearing aids are used where possible
- monitor behaviour, include what works well and what is a trigger for escalation
- ensure all needs are met, physical, psychological and social
- consider spiritual interventions that would be of comfort to the resident.

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Delirium

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