DELIRIUM CARE

what you need to know

NSW GOVERNMENT Health
Illawarra Shoalhaven
Local Health District

UNIVERSITY
OF WOLLONGONG
AUSTRALIA

NSW GOVERNMENT Health
South Eastern Sydney
Local Health District

ACKNOWLEDGEMENTS

Victoria Traynor
Professor
School of Nursing
University of Wollongong

Miriam Coyle
Clinical Nurse Consultant,
Dementia Delirium
Illawarra Shoalhaven Local Health District

Nicole Britten
Senior Occupational Therapist
Aged Services Emergency Team
The Wollongong Hospital

Dr Nicholas Cordato
Senior Staff Specialist and Conjoint
Senior Lecturer
St George & Calvary Hospitals and
The University of New South Wales

Glenn Power
Stream Manager Aged Care and
Rehabilitation Services
South East Sydney Local Health District

Colleen McKinnon
Clinical Nurse Consultant, Dementia Delirium
South East Sydney Local Health District

Kylie Ditton
Clinical Nurse Consultant, Aged Services Emergency
Team and Sutherland Heart and Lung Team
The Sutherland Hospital

Bronwyn Arthur
Transitioning Nurse Practitioner
Aged & Extended Care
The Sutherland Hospital

Joanne Burgess
Clinical Nurse Consultant, Community
and Ambulatory Care
St George Hospital and Community Care

Kellee Barbuto
Clinical Nurse Specialist
Aged Services Emergency Team
St George Hospital

Dr. Yun XU
Staff Specialist in Geriatrics
St George Hospital

Kim Duncan
Clinical Nurse Consultant
Aged Services Emergency Team
St Vincent's Health Network

Janine Masso
Research Associate
University of Wollongong

Amy Montgomery
Nurse Practitioner
Aged Care Department
St. George Hospital Kogarah

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CONTENTS

WHY DOES CONFUSION MATTER?

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- 50% of older patients experience a delirium during a hospital admission
- Confusion is a visible symptom of delirium
- Older people often have their confusion ignored and their delirium remains undiagnosed and untreated
- Delirium is a medical condition caused by multiple factors
- Undiagnosed or misdiagnosed delirium causes morbidity
- Older people who experience an episode of delirium have an increased risk of experiencing persistent delirium at discharge and other morbidities, for example, a fall (50% more likely) and dementia (62% more likely)

IS IT DELIRIUM, DEPRESSION OR DEMENTIA?

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FEATURE	DEMENTIA	DELIRIUM	DEPRESSION
ONSET	Slow and insidious: Deterioration over months or years	Sudden: Over hours or days	Often abrupt: May coincide with life changes
COURSE	Symptoms are progressive over a long period of time and not reversible	Short and fluctuating: Often worse at night and on waking. Reversible when underlying condition treated	Typically worse in the morning. Reversible when treated
DURATION	Months to years	Hours to usually less than one month	At least two weeks and can last for months or years
PSYCHOMOTOR ACTIVITY	Wandering/ exit seeking/ agitated/ withdrawn	Hyperactive: Agitation, restlessness, hallucinations Hypoactive: Sleepy, slow-moving	Usually withdrawn, apathy
ALERTNESS	Generally normal	Fluctuates: May be hypervigilant to very lethargic	Normal
ATTENTION	Generally normal	Impaired: Difficulty following conversation, fluctuates	Normal
MOOD	Depression may be present in early dementia	Fluctuating emotions: Anger, tearful outbursts, fear	Depressed mood/ lack of interest or pleasure in usual activities/ changed appetite (increase or decrease)
THINKING	Difficulty with word-finding and abstraction	Disorganised, distorted, fragmented	Intact: Themes of helplessness and hopelessness
PERCEPTION	Misperceptions usually absent	Distorted: Illusions, hallucinations, delusions, difficulty distinguishing between reality and misperceptions	Usually intact: Hallucinations and delusions present in severe cases

IS DELIRIUM LIMITED TO OLDER PEOPLE?

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- Delirium occurs in all age groups
- Delirium is most common among infants and older people
- 10% of all children and adolescents admitted to hospital present with a delirium
- Most common causes of delirium in younger age groups are the same as older age groups, that is infection, drugs and toxins, metabolic dysfunction and other serious illness
- Signs and symptoms of delirium are similar across the age span
- Duration is hours to usually less than a month

TYPES OF DELIRIUM

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HYPOACTIVE

Reduced motor activity, lethargy, withdrawal, staring into space and drowsiness.

Is mistaken for lack of motivation, depression or dementia.

HYPERACTIVE

Increased motor activity, hallucinations, delusions, restlessness, agitation, inappropriate behaviour, rambling speech, hyper-arousal and hyper-alert.

MIXED

Alternating features between hyperactive and hypoactive.

Older person fluctuates between increased psychomotor behaviour and lethargy and altered consciousness.

RISK FACTORS FOR DELIRIUM

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- **DEMOGRAPHICS**
  - Being over 65
- **COGNITIVE STATUS**
  - Having a dementia or cognitive impairment
  - Prior episode of a delirium
  - Having a depression
- **CO-MORBIDITIES**
  - Acute medical condition (for example, infection, hypoxia, anaemia, dehydration, hypoglycaemia, hyperglycaemia, urinary retention, pain)
  - Chronic medical condition (for example, neurological disease, chronic liver, kidney disease, diabetes, pain)
- **SURGERY**
- **SENSORY IMPAIRMENT**
  - Visual or hearing loss
- **DRUGS**
  - Especially polypharmacy
  - Alcohol or drug withdrawal
- **IATROGENIC**
  (Hospital related)
  - Environment over and under stimulation
  - Admission to intensive care unit
  - Medical procedures for example, catherisation
  - Restraint use: physical or pharmacological
  - Multiple ward changes

AGE RELATED PHYSIOLOGICAL CHANGES INCREASING THE RISK OF DELIRIUM

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- Changed sight and hearing → perception compromised
- Decreased thirst sensation → dehydration
- Decreased chewing strength and taste → malnutrition
- Decreased sensation to defecate → constipation
- Suppressed fever response → infection hidden and untreated
- Ineffective drug metabolism → adverse effects
- Disturbed sleep patterns → lack of sleep
- Musculoskeletal problems → pain and immobility

HIGH RISK MEDICATIONS CONTRIBUTING TO DELIRIUM

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Anticholinergic agents can cause the following adverse effects: confusion, delirium, constipation, dry mouth and eyes, urinary retention, tachycardia

DRUG CLASS	EXAMPLES
ANALGESICS	- Narcotics (pethidine (meperidine)*) - Non-steroidal anti-infl ammatory drugs* - Antihistamines (first generation for example, hydroxyzine)
ANTINAUSEANTS	- Scopolamine - Dimenhydrinate
ANTIBIOTICS	- Fluoroquinolones*
CENTRAL ACTING AGENTS	- Sedative hypnotics (for example, benzodiazepines) - Anticonvulsants (for example, barbiturates) - Antiparkinsonian agents (for example madopar, sinemet)
CARDIAC MEDICATIONS	- Antiarrhythmics - Digitalis* - Antihypertensives (b-blockers, methyldopa)
GASTROINTESTINAL AGENTS	- Antispasmodics - H2-blockers*
PSYCHOTROPIC MEDICATIONS	- Tricyclic antidepressants - Lithium*
MISCELLANEOUS	- Skeletal muscle relaxants - Steroids

* Requires adjustment in renal impairment.

OVER THE COUNTER MEDICATIONS AND COMPLEMENTARY/ALTERNATIVE MEDICATIONS

- Antihistamines (first generation for example, diphenhydramine, chlorpheniramine)
- Antinauseants (for example, dimenhydrinate, scopolamine)
- Liquid medications containing alcohol
- Mandrake
- Henbane
- Jimson weed
- Atropa belladonna extract

CONFUSION ASSESSMENT METHOD (CAM)

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The Confusion Assessment Method is completed after using a cognitive screen, for example, the MMSE or AMTS

FEATURE 1: Acute Onset and Fluctuating Course

This feature is usually obtained from a family member or nurse and is shown by positive responses to the following questions: Is there evidence of an acute change in mental status from the person's usual state? Did the abnormal behaviour fluctuate during the day, that is, tend to come and go, or increase and decrease in severity?

FEATURE 2: Inattention

This feature is shown by a positive response to the following question: Did the person have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said?

FEATURE 3: Disorganised thinking

This feature is shown by a positive response to the following question: Was the person's thinking disorganised or incoherent, for example, rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?

FEATURE 4: Altered Level of Consciousness

This feature is shown by any response other than 'alert' to the following question:

'Overall, how would you rate this person's level of consciousness? (Alert [normal], vigilant [hyper-alert], lethargic [drowsy, easily roused], stupor [difficult to rouse] or coma [unrousable]?'

The **recognition of delirium by CAM** requires the presence of **Features 1 AND** 2 **AND EITHER** 3 **OR** 4.

ASSESSING FOR DELIRIUM - THE 4AT

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[1] ALERTNESS

CIRCLE

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 the patient to state their name and address to assist rating.

Normal (fully alert, but not agitated, throughout assessment)	0
Mild sleepiness for <10 seconds after waking, then normal	0
Clearly abnormal	4

[2] AMT4

Age, date of birth, place (name of the hospital or building), current year.

No mistakes	0
1 mistake	1
2 or more mistakes/untestable	2

[3] ATTENTION

Ask the patient: "Please tell me the months of the year in backwards order, starting at December."
To assist initial understanding one prompt of "what is the month before December?" is permitted.

Months of the year backwards	Achieves 7 months or more correctly	0
	Starts but scores <7 months / refuses to start	1
	Untestable (cannot start because unwell, drowsy, inattentive)	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 last 2 weeks and still evident in last 24hrs.

No	0
Yes	4

4 or above: *possible delirium +/- cognitive impairment*
1-3: *possible cognitive impairment*
0: *delirium or severe cognitive impairment unlikely*
(but delirium still possible if [4] information incomplete)

4AT SCORE

GUIDANCE NOTES Version 1.2. Information and download: www.the4AT.com

The 4AT is a screening instrument designed for rapid initial assessment of delirium and cognitive impairment. A score of 4 or more suggests delirium but is not diagnostic: more detailed assessment of mental status may be required to reach a diagnosis. A score of 1-3 suggests cognitive impairment and more detailed cognitive testing and informant history-taking are required. A score of 0 does not definitively exclude delirium or cognitive impairment: more detailed testing may be required depending on the clinical context. 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), eg. your own knowledge of the patient, other staff who know the patient (eg. ward nurses), GP letter, case notes, carers. The tester should take account of communication difficulties (hearing impairment, dysphasia, lack of common language) when carrying out the test and interpreting the score.

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): This score can be extracted from items in the AMT10 if the latter is done immediately before. 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 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?"

OBSERVATIONS AND INVESTIGATIONS FOR DELIRIUM

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- Vital signs: temperature, blood pressure and oxygen saturation
- Comprehensive assessment to identify physical cause(s) of delirium:
  - Blood screen
  - Urinalysis and urine culture
  - Electrocardiogram (ECG)
  - Assessment for constipation
  - Assessment for pain
  - Medication history
  - Medical information from family

CORRECTABLE CONTRIBUTING CAUSES FOR DELIRIUM

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- Medication review and develop a withdrawal plan
- Treat infection
- Re-establish cardiovascular stability
- Administer aperients and manage urinary retention
- Re-hydration plan
- Administer analgesia
- Manage metabolic disturbances, for example, hypoglycaemia or hypoxia

NON-PHARMACOLOGICAL STRATEGIES FOR DELIRIUM

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- Provide reassurance to the person and family
- Use re-orientation strategies (for example, verbal and environmental)
- Encourage presence of a family member
- Consider the need for language interpreters
- Provide for safety using the least restrictive measures
- Ensure opportunities to mobilise are provided
- Provide the person and family with ongoing information about delirum

ENVIRONMENTAL STRATEGIES TO REDUCE THE EFFECTS OF A DELIRIUM

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- Reduce noise or move person to a quieter location to avoid over-stimulation and ensure supervision
- Provide appropriate lighting to reduce misinterpretations and promote sleep
- Use re-orientation strategies (for example, clocks, calendars)
- Provide objects familiar to the person to reduce disorientation
- Avoid unnecessary room transfers and have consistency in staff

PHARMACOLOGICAL PRINCIPLES FOR MANAGING DELIRIUM

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- Avoid use of psychotropic medications
- Use of psychotropic medications should be limited to specific situations:

  - When an older person is in significant distress due to agitation or psychotic symptoms

  - To undertake an essential investigation or treatment

  - If required, the suggested initial medication to trial with an older person is a low dose of Haloperidol (0.25mg) (DoHA, 2006)

- Ensure medication is charted as PRN
- Use antipsychotic drugs with caution or not at all for people with Parkinson's disease or dementia with Lewy body dementia
- Psychotropics have many side effects, monitor closely and review regularly
- Develop a psychotropic cessation plan

LAY RECOGNITION OF DELIRIUM

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- Suddenly unwell over the past day or so
- Recent and new confusion over the past day or so
- More confused than normal
- Agitated or aggressive
- Wandering/ pacing
- Sleepy during the day and awake all night
- They're not normally like this!
- Seeing things that are not there
- Having strange ideas
- Disorientated
- Difficulty paying attention
- Anxious
- Irritable
- Withdrawn

EXPERIENCING DELIRIUM: HOW DOES IT FEEL?

EXPERIENCING DELIRIUM: HOW DOES IT FEEL?

THINGS LOOK DIFFERENT

"It was as if everything went round and round, I was in hospital but still it did not look like a hospital to me."

"I was confused, was not able to see things clearly."

Many people do not remember their delirium but they recall it as being a distressing event.

HALLUCINATIONS AND DELUSIONS

"Suddenly I was a prisoner in a Nazi camp, and I thought that the nurses were the Nazi camp guards… ."

"I had to get away, at all costs… . When the staff disappeared into another room and I was left alone, I thought that now I have the opportunity to get away."

"I thought I was in a cage." (bedrails were being used)

FEAR AND ANXIETY

"I was fearful as if something is going to break, something is going to fall."

"The water gushed into the room again and it was at that moment I was so terribly afraid."

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Relevant organisational, state and national policies and procedures are available on Local Health District intranet sites and should be followed.

FURTHER READING

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CONTACT DETAILS

VICTORIA TRAYNOR

Professor (Rehabilitation, Continuing and Aged Care)

SCHOOL OF NURSING

Faculty of Medicine, Science and Health

41.209 SCIENCE BUILDING

Northfields Avenue, University of Wollongong NSW 2522

T + 61 2 4221 3471

E victoria_traynor@uow.edu.au

ADHERe

Aged Dementia Health Education and Research

ADHERe.ORG.AU

adhere-enquiries@uow.edu.au

For clinical consultation contact your local clinical nurse consultant, clinical nurse education or clinical nursing specialist

ILLAWARRA AND SHOALHAVEN LOCAL HEALTH DISTRICT

Miriam Coyle, Clinical Nurse Consultant (Dementia/ Delirium)

BULLI HOSPITAL

Hospital Road, Bulli 2516

T 0402 893 784

E miriam.coyle@health.nsw.gov.au

SOUTH EASTERN SYDNEY LOCAL HEALTH DISTRICT

Amy Montgomery, Nurse Practitioner (Aged Care Department)

ST. GEORGE HOSPITAL

3 Chapel Street Kogarah NSW 2217

E amy.montgomery@health.nsw.gov.au

NSW GOVERNMENT Health Illawarra Shoalhaven Local Health District

UNIVERSITY OF WOLLONGONG AUSTRALIA

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