The prevention, detection, assessment and management of Delirium
People who develop delirium will:

• need to stay longer in hospital or in critical care
• have more hospital-acquired complications, such as falls and pressure injuries
• be more likely to be admitted to long-term care
• be more likely to die.
Introduction

Delirium is one of the most common disorders encountered in older people

It is characterised by a change in the level of consciousness and change in cognition that develops over a short space of time and may fluctuate in intensity. Nearly 30% of older patients experience delirium at some time during hospitalisation. Higher figures are associated with frail patients, those who have had falls, fractured hips, and complex procedures such as cardiac surgery.

Care of the elderly is becoming the core activity of general based medicine and surgery. The care of younger adults with standard single diagnosis problems will be considered ‘practice’ for the real job of caring for older people in their entire complex, challenging glory. Competent inpatient care requires the assessment of cognition to be taken into account and the management of delirium and dementia to be done as confidently as the management of heart failure.

Delirium can initiate or be a key component in a cascade of events that lead to a downward spiral of functional decline, loss of independence, institutionalisation, and ultimately, death. The aetiologies of delirium are diverse and multifactorial and often reflect the pathophysiological consequences of acute medical illness, trauma, medical complication, drug intoxication, inflammatory and acute stress responses.

Delirium can be hard to recognise and the detection, assessment, and management of delirium is based primarily upon clinical observation and expert opinion

Delirium in the elderly

- In the elderly a number of factors often combines to produce delirium
- These patients may be seriously ill and have high mortality
- Predisposing factors include:
  - advanced age
  - pre existing dementia
  - sensory impairment
  - multiple co-morbidities
Delirium is the most common preventable adverse event among older persons during hospitalisation.

Clinical trials provide compelling evidence that at least 30-40 percent of cases may be preventable.
Definition

Delirium is characterised by a disorder in consciousness and change in cognition that develops over a short space of time and may fluctuate in intensity. It is the direct physiological consequence of a general medical condition, event, of intoxication/withdrawal, though there may be insufficient evidence to establish a specific aetiology.

Signs and symptoms
- Clouding of consciousness
- Disorientation in time and space/place
- Changes in attention - difficulty focusing, sustaining or shifting attention
- Language disturbance/speech disturbance e.g. rambling speech
- Memory impairment (most commonly impaired recent memory)
- Agitation or apathy
- Fluctuating course
- Changes in sleep/wake cycle, often worse at night
- Perceptual distortion with hallucinations
- Disorganised behaviour
- Disturbed mood and emotional disturbances
- Disturbance in psychomotor behaviour with agitation/sluggishness
- Extreme fearfulness

There are three types of delirium
- **Hypoactive** - Withdrawn, sleepy, quiet, respond slowly to questioning, and show little spontaneous movement. These patients are frequently overlooked or misdiagnosed as having depression or a form of dementia.
- **Hyperactive** - Heightened arousal, restless, agitated, aggressive, and often experience hallucinations and delusions.
- **Mixed** - Demonstrate both hyperactive and hypoactive features.

Causes
There are a number of underlying conditions/disorders that are commonly associated with delirium, including:
- general illnesses and infections such as pneumonia or urinary tract infection
- disorders of the central nervous system such as stroke or subdural haematoma
- disorders of the heart or lungs such as heart or respiratory failure
- medication use
- disorders of metabolism such as kidney failure or dehydration.

Aetiology
Although some of the common causes have been listed above, the aetiology of delirium is thought to be complex and multifactorial involving an interaction between predisposing patient factors (or vulnerabilities) such as age, and precipitating factors (or insults) such as general illness.
Prevalence and incidence

Cost of delivery to health care

Key messages about delirium

The diagnosis of delirium is clinically based and depends on the presence or absence of certain features. Do not assume the patient is demented. ASSUME IT IS DELIRIUM
Hypoactive delirium is frequently overlooked or misdiagnosed as depression or as a form of dementia.
Waikato DHB delirium pathway

MULTI COMPONENT MULTI DISCIPLINARY INTERVENTION: Aim for prevention and minimisation strategies

**Screening:** All patients over 70 years old and when clinically indicated

- Environment: Single room in high surveillance area (cohort if needed in double room), avoid room changes, clock, calendar, view, adequate lighting (especially at night so patient can see their way to the toilet), minimise noise, call bell in reach, mimic patient’s usual routines where possible
- Orientation: To ward and staff. Introduce self and role often. Validate feelings expressed by patient
- Family support and communication: Implement carer framework where carers can stay to look after relative.
- Identify likes and dislikes: Use ‘This is me’ or sunflower
- Eyes and ears: Ensure patient wears glasses and hearing aids
- Activity: Exercise, early mobilisation, cognitively stimulating activities, social strategies, personal items and photos in room, music therapy

**PATIENT FOCUSED CARE PRACTICES**

**Admitted to inpatient ward**

If an admitted patient is confused consider delirium, and complete reassessment and screening as required

- Toileting: Regular regime and bowel charts. Avoid constipation
- Change of status: Sticker in clinical record if delirium presents after admission to ward
- Review clinical care: Review medications, look for signs of infection, manage pain, avoid sleep disturbance where possible, check oxygen levels, avoid unnecessary catheterisation, diagnose and treat any underlying dementia
- Falls prevention: Equipment in place if patient is a high falls risk (or if scoring 4 on confusion / disorientation / impulsivity section), use well fitting footwear
- Watches: Use ward HCAs for pm/nocte (only if patient is a safety risk e.g. aggressive/impulsive/wandering and if all other strategies are in place)
- Hydration and fluid balance: Early post-op hydration, offer tea or patient preference (not just water), snacks, monitor intake and output – FBC / sit out of bed for meals if able

**Discharge destination:** Home, residential care or other location

- Delirium resource book
- Delirium education workshops
- Delirium information for patients and families
- Clinical guideline for delirium management
- ADDITIONAL RESOURCES
  - Geriatrician review (use SPOE form)
  - Referral to consult liaison
  - Referral to MHSOP
  - Referral to OPD outpatients

**Additional**

### Delirium Presentation

- To ED or pre-admission clinic with health need

### Clinical Care Practices

- Presented to ED or pre-admission clinic with health need

### Discharge Destination

- Home, residential care or other location
Clinical interventions to prevent delirium

Orientation
- Orientate to staff and environment
- Introduce yourself and role often
- Consider appropriate tone, body language
- Validate feelings expressed
- Facilitate regular visits from family and friends
- Introduce cognitively stimulating activities

Sensory input
- Ensure hearing and visual aids are used
- Avoid room changes
- Identify usual routines, likes/dislikes
- Have personal objects/photos/momentos displayed
- Provide natural lighting and maintain some lighting at night
- Provide appropriate lighting and clear signage
- Have clock and calendar easily visible to the patient
- Introduce cognitively stimulating activities
- Provide single room to reduce disturbance of staff attending to others
- Provide quiet environment at rest times
- Avoid boredom and loneliness

Dehydration and Nutrition
- Encourage/assist person to eat and drink. Offer finger foods
- Offer snacks, especially in evening
- Monitor intake
- Avoid caffeine
- Consider subcutaneous or IV fluids if necessary
- Sit out of bed for meals

Hypoxia
- Assess and optimise oxygen saturation if necessary

Immobility/limited mobility
- Encourage mobilising e.g. soon after surgery
- Active range of motion exercises
- Exercise, stimulation and sunshine

Infection
- Look for and treat infection
- Infection control procedures to prevent hospital acquired infection
Medications

- Review medications (sedative hypnotics, narcotics, anticholinergics, corticosteroids, polypharmacy, changes in medication)

Pain

- Assess for pain and treat with medications, positioning, mobilising, as necessary
- Look for non-verbal signs be mindful that people with dementia may not be able to inform/describe their pain. Use PAINAID scale

Sleep disturbance

- Avoid nursing or medical procedures during sleeping hours
- Schedule medication rounds to avoid disturbing sleep
- Reduce noise to a minimum
- Short rest period only in afternoon

Continence care

- Avoid unnecessary catheterisation
- Fluid balance chart
- Bowel charts
- Low level lighting at night so person can see way to toilet
  Refer Urinary Continence assessment and Management Flowchart

Constipation

- Regular bowel function - avoid constipation
  Refer Inpatient Bowel Management procedure
Interventions to prevent and manage delirium are multifactorial and multidisciplinary.
Risk factors and causes

Know and respond to the risk factors with appropriate interventions

### Causes

- The development of delirium is often multifactorial and there is not usually a single cause.
- There is usually an identifiable underlying condition predisposing to delirium and a trigger or a precipitating event such as an acute illness, surgery, medication use or drug withdrawal.
- The greatest risk factor for delirium is a pre-existing dementia or cognitive impairment. This may not have been recognised until the patient presents for the first time with delirium.

- This list of possible triggers can be used as a checklist. Note that there may be other causes.
  - **Medication and drugs:**
    - polypharmacy
    - drug or alcohol withdrawal
  - **Infections:**
    - encephalitis and meningitis
    - severe infections
    - any infection in the elderly
  - **Metabolic and Endocrine:**
    - electrolyte disturbance
    - uraemia and liver failure
    - thyroid disease
    - hypoglycaemia or hyperglycaemia
  - **Hypoxia:**
    - cardiovascular and respiratory disease
    - anaemia
    - anaesthesia and post operative states
  - **Vitamin deficiency:**
    - especially thiamine if poor nutrition
  - **Neurological:**
    - head injury and subdural
    - cerebrovascular disease
    - seizures and epilepsy
    - Parkinson’s disease
  - **Other causes:**
    - urinary retention or constipation
    - dehydration and poor nutrition
    - pain, not necessarily just severe pain
    - sleep disturbance
    - urinary catheterisation
    - use of restraints
## Drugs commonly causing delirium

<table>
<thead>
<tr>
<th>Analgesics</th>
<th>Corticosteroids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonsteroidal anti-inflammatory agents, Opioids</td>
<td>Amantadine, Bromocriptine, Levadopa, Pergolide, Pramipexole, Ropinirole</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Antibiotics and antivirals</th>
<th>Dopamine agents</th>
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<tbody>
<tr>
<td>Acyclovir, Aminoglycosides, Amphotericin B, Antimalarials, Cephalosporins, Cycloserine, Fluoroquinolones, Isoniazid, Interferon, Linezolid, Macrolides, Metronidazole, Nalidixic acid, Penicillins, Rifampin, Sulfonamides</td>
<td>Antiemetics, Antispasmodics, Histamine-2 receptor blockers, Loperamide</td>
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<thead>
<tr>
<th>Anticholinergics</th>
<th>Gastrointestinal agents</th>
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<tbody>
<tr>
<td>Atropine, Benztropine, Diphenhydramine, Scopolamine, Trihexphenidyl</td>
<td>Antiemetics, Antispasmodics, Histamine-2 receptor blockers, Loperamide</td>
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<table>
<thead>
<tr>
<th>Anticonvulsants</th>
<th>Herbal preparations</th>
</tr>
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<tbody>
<tr>
<td>Carbamazepine, Levetiracetam, Phenytoin, Valproate, Vigabatrin</td>
<td>Atropa belladonna extract, Henbane, Mandrake, Jimson weed, St John’s wort, Valerian</td>
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<thead>
<tr>
<th>Antidepressants</th>
<th>Hypoglycemics</th>
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<tbody>
<tr>
<td>Mirtazapine, Selective serotonin reuptake inhibitors, Tricyclic antidepressants</td>
<td>Hypoglycemics</td>
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</tbody>
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<thead>
<tr>
<th>Cardiovascular and hypertension drugs</th>
<th>Hypnotics and sedatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiarrhythmics, Beta blockers, Clonidine, Digoxin, Diuretics, Methyldopa</td>
<td>Barbiturates, Benzodiazapines</td>
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<tr>
<th>Muscle relaxants</th>
<th>Other CNS-active agents</th>
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<tbody>
<tr>
<td>Baclofen, Cyclobenzaprine</td>
<td>Disulfiram, Donepezil, Interleukin-2, Lithium, Phenothiazines</td>
</tr>
</tbody>
</table>
Medical treatment and management of delirium

Definition (updated DSM V-TR)

1. Disturbance in attention (ie, reduced ability to direct, focus, sustain, and shift attention) and orientation to the environment;
2. disturbance develops over a short period of time (hours to a few days) and represents an acute change from baseline that is not solely attributable to another neurocognitive disorder and tends to fluctuate in severity during the course of a day;
3. a change in an additional cognitive domain, such as memory deficit, disorientation, or language disturbance, or perceptual disturbance that is not better accounted for by a pre-existing, established, or evolving other neurocognitive disorder; and
4. disturbances in 1 and 3 must not occur in the context of a severely reduced level of arousal, such as coma.

Diagnosis

• Try to establish an accurate diagnosis; early diagnosis is the key to management.
• Delirium is easily missed and often overlooked, especially hypoactive delirium.
• Try to determine any underlying causes or triggers which may need specific treatment.
• It is essential to distinguish between delirium, dementia and psychiatric illness or psychosis.
• The most common differential diagnostic issue is whether the person has a dementia rather than a delirium, has a delirium alone, or has a delirium superimposed on an existing dementia.
• In delirium with hallucinations and delusions a psychotic illness must be excluded.

Medical assessment

• Delirium is a medical emergency and the early recognition of delirium in the ED is critical.
• Delirium is undiagnosed in over half of cases presenting to hospital and the possibility of delirium should be considered in all older patients admitted to hospital.
• Non-detection of delirium in ED is associated with a seven fold hazard for increased mortality as patients with delirium are at a higher risk of potentially preventable falls and injuries.
• There is no diagnostic test and diagnosis rests on clinical skills. Assessment tools can help.
• The history from the family or carers is a key part of the assessment. Try to establish what the patient’s prior cognitive abilities were and the acuity of change in the mental state.
• The CAM tool is the most reliable tool used to diagnose delirium JAMA 2010; 304:779:786 and the nurses have been trained in using this. The first assessment should be done in ED.
• The 10 point Abbreviated Mental Test (AMT) can also be used as a quick screening tool. Five questions test orientation and three memory. Counting backwards tests attention; the inability to do this is the most indicative of delirium.
We suggest asking questions in the following order:
- Name of place
- Year
- Time to nearest hour
- Birthday [date and month]
- Age
- Give an address for recall at end of test
- Year WWII started [or other date the patient should know]
- Name of prime minister
- Count backwards 20 -1
- Recognition of 2 persons e.g. doctor, nurse
- Ask to recall the address

• Score the result out of 10.
• A score of 6 or less is used as a cut off to separate the confused from the ‘normal’ elderly.
• The test can be repeated to monitor progress.
• The 30 point Mini-Mental State Examination (MMSE) can help assess the severity of confusion but can be difficult to perform in the very confused and has its limitations. It is also patented.
• The Montreal Cognitive Assessment (MOCA) is increasingly used instead to assess cognition in patients with dementia but is not useful in delirium. Delirious patients cannot cooperate.
• Note that the AMT score, MMSE and MOCA do not differentiate delirium from dementia.

CT in delirium
Is usually not needed but consider a CT if:
• focal neurology
• new seizures
• head injury or fall
• on anticoagulants
• evidence of raised ICP

Admission guidelines
• Patients should be admitted under the service most appropriate for management of the cause.
• Patients with acute delirium of uncertain cause should be admitted under General Medicine.
• Delirium developing in inpatients already under a service should remain under that service.
• If further specialist advice is required, opinions may be sought from Geriatrics, Psychogeriatrics or Consultation-liaison Psychiatry. See the Referral Guidelines for which service to contact.

Management
• Try to establish and treat the underlying cause.
• Investigate as indicated by clinical findings.
• Stop possible offending drugs.
• Control of pain is very important.
• Avoid pharmacotherapy and try other calming techniques.
• Treatment may be needed if the patient is very distressed.
• You should be treating the patient not the staff!
Pharmacological treatment

This is an area of delirium treatment that is often done incorrectly and it is one of the most important. Contact consult liaison, a geriatrician or mental health for older persons for expert advice.

Any drug chosen should be initiated at the lowest starting dose for the shortest time.

Nurses need to be vigilant in monitoring for drug interactions and the effects of starting or discontinuing a medication.

Drug Treatment

- Haloperidol has been the agent of choice.
  - Start regular Haloperidol 0.5-1.0mg twice daily orally, with additional doses every 4 hours as needed (peak effect is at 4-6 hrs)
  - 0.5-1.0mg can be given intramuscularly; observe after 30-60 minutes; repeat again as needed (peak effect develops at 20-40 minutes)
- There is limited trial data for Risperidone 0.5mg bd or Quetiapine 25mg bd
- As a third line low dose Olanzapine 2.5mg bd may be tried.
- It is better to give as few different drugs as possible.
- Use Lorazepam 0.5-1.0mg orally and up to 4 hourly in Parkinson’s. Alternatively Quetiapine 12.5-25 mg bd may occasionally be used.
- When diazepam is used in patients with sedative or alcohol withdrawal follow your EDs alcohol withdrawal protocols for Diazepam doses.

Capacity assessment

- Decision making capacity is a legal construct. Capacity is not the same as competency.
- Doctors can do capacity assessments while the courts must decide on competency.
- Capacity is presumed to be present and you must look for evidence of incapacity.
- A patient can only be deemed capable of decision making for a particular issue at that time.
- The degree of mental capacity required to make decisions depends on the question being asked and the severity of the potential consequences of the decision.
- Decision making capacity is not global. It is:
  - domain specific (e.g. finances v health care),
  - decision specific (e.g. consent for bypass v consent for flu vaccine),
  - time specific.
- To determine capacity you need to know what issues are involved.
- Patients should be able to:
  - understand the relevant information,
  - appreciate the situation and its consequence,
  - reason about treatment options,
  - communicate a choice.
- The majority of capacity assessments can be conducted by ward doctors.
- If there is doubt or a dispute and a second opinion is required then refer to Psychiatric Liaison.
Cultural

Symptoms of delirium can be interpreted differently according to one’s culture e.g. hallucinations. For patients who identify as Maori refer to Tikanga Best Practice Guidelines and contact your Kaitiaki if appropriate.

Differential diagnosis of delirium

<table>
<thead>
<tr>
<th>Observation</th>
<th>Delirium</th>
<th>Dementia</th>
<th>Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onset</td>
<td>Acute</td>
<td>Insidious</td>
<td>Variable</td>
</tr>
<tr>
<td>Orientation</td>
<td>Impaired</td>
<td>Impaired</td>
<td>Intact</td>
</tr>
<tr>
<td>Short-term memory</td>
<td>Impaired</td>
<td>Impaired</td>
<td>Intact</td>
</tr>
<tr>
<td>Sensorium</td>
<td>Fluctuating</td>
<td>Variable</td>
<td>Intact</td>
</tr>
<tr>
<td>Attentiveness</td>
<td>Impaired</td>
<td>Variable</td>
<td>Usually intact</td>
</tr>
<tr>
<td>Delusions (eg paranoia)</td>
<td>Common</td>
<td>Sometimes</td>
<td>Rare</td>
</tr>
<tr>
<td>Hallucinations</td>
<td>Visual, tactile, or olfactory</td>
<td>Uncommon</td>
<td>Rare</td>
</tr>
<tr>
<td>Duration</td>
<td>Short</td>
<td>Chronic</td>
<td>Variable</td>
</tr>
</tbody>
</table>

The most common differential diagnostic issue is whether the person has a dementia rather than a delirium, has a delirium alone, or has a delirium superimposed on an existing dementia.

Delirium that is characterised by vivid hallucinations, delusions, and language disturbance must be distinguished from psychotic disorders.

In Delirium, the patient generally shows evidence of an underlying medical condition, substance intoxication/withdrawal, or medication use.

If unable to differentiate between delirium and other disorders, consider referral to a geriatrician, or psychiatric liaison service.
Delirium can be a terrifying event for patients and their families.

It cannot be overstated how important it is to provide them with reassurance, education and support.
Nursing management of concerning behaviours for patients with delirium

Definition:
Concerning behaviours are those behaviours exhibited in patients with delirium where they:
- place themselves, other patients, carers and/or staff at risk
- impair staff member’s ability to care for them
- are distressing for the patient, carers or staff
- require increased intervention to maintain patient safety.

Common patterns of concerning behaviour include:
- verbal abuse
- wandering/agitation
- impulsive or disinhibited behaviour
- intrusiveness into other patient’s space and property
- tampering with or pulling out lines and catheters.

The registered nurse looking after the patient must ensure:
- a doctor is notified who reassesses the patient
- a confusion assessment method (CAM) tool is completed
- that the delirium pathway is followed
- that the care plan is updated
- that any other assessments (e.g. falls risk) are completed.

The charge nurse manager/coordinator must ensure:
- patient allocation is changed to accommodate a patient with a concerning behaviour
- all processes involving restraint are considered and complied with according to Waikato DHB policy and in partnership with the family
- the patient’s family is kept informed of the patient’s condition.

Note: If patient exhibits signs of suicidal ideation or tendencies refer immediately to consult liaison. A mandatory watch is a legislative requirement in these cases.

Role of family

Patients who experience delirium often experience high stress associated with their delusions. They may become agitated. Familiarity is important to minimise this stress and agitation so wherever possible staff should engage in discussions with family/wha’nau to see if they are able to stay with the patient during the day and/or overnight in order to provide familiarity and comfort for the patient.

When a family member stays it is important to assist them with parking concession cards, orientation to the ward, and provision of meals where possible.
## Care intensity level for patients diagnosed with delirium

<table>
<thead>
<tr>
<th>Type</th>
<th>For</th>
<th>Management</th>
<th>Requirements</th>
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</thead>
<tbody>
<tr>
<td>Routine rounding</td>
<td>Patients diagnosed with delirium who have carers present and/or are able to be kept safe within usual staffing resource and management.</td>
<td>Implement delirium pathway strategies</td>
<td>Update care plan on shift by shift basis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Routine/intentional rounding with attention to toileting regime, falls prevention, hydration, nutrition and safety. Family advised and may contribute to care.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>If pathology is identified, treat the pathology</td>
<td></td>
</tr>
<tr>
<td>High vigilance</td>
<td>Patients diagnosed with delirium who require increased monitoring to maintain safety.</td>
<td>Implementation of delirium pathway strategies.</td>
<td>Charge nurse manager/registered nurse coordinator must review care plan on shift by shift basis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intensive monitoring of patient every thirty minutes by ward.</td>
<td>Complete observations more frequently as per care plan.</td>
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<tr>
<td></td>
<td></td>
<td>Ask the family if they are able to stay with the patient as they often provide a calming influence.</td>
<td></td>
</tr>
<tr>
<td>1:1 observation</td>
<td>Patients diagnosed with delirium who are aggressive/impulsive/wandering patients. This is only implemented when all other care practices have been exhausted.</td>
<td>Patient watch (usually a staff member/health care assistant) required to maintain patient safety. Specify whether this is:</td>
<td>Requires a patient watch care plan to be written and a watch request faxed to IOC agency charge nurse managers.</td>
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<tr>
<td></td>
<td></td>
<td>- outside a room</td>
<td>Charge nurse manager/registered nurse coordinator must review the need for a patient watch each shift.</td>
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<tr>
<td></td>
<td></td>
<td>- within the patient’s bed space</td>
<td>May require workload reallocation to achieve 1:1 care (as would occur with deteriorating patient).</td>
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<tr>
<td></td>
<td></td>
<td>- within arms length of the patient</td>
<td>Watch preferably done by familiar person e.g. ward HCA</td>
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## Managing challenging behaviours

### Practical tips:

<table>
<thead>
<tr>
<th>AIM FOR SAFETY</th>
<th>Look for the activating event or trigger and remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOP</td>
<td>Think about what you are about to do and consider the best way to do it.</td>
</tr>
<tr>
<td>PLAN AND EXPLAIN</td>
<td>Who you are; what you want to do; why.</td>
</tr>
<tr>
<td>SMILE</td>
<td>The person who takes their cue from you will mirror your relaxed and positive body language and tone of voice</td>
</tr>
<tr>
<td>GO SLOWLY</td>
<td>You have a lot to do and you are in a hurry but the person isn’t. How would you feel if someone came into your bedroom, pulled back your blankets and started pulling you out of bed without even giving you time to wake up properly?</td>
</tr>
<tr>
<td>GO AWAY</td>
<td>If the person is resistive or aggressive but is not causing harm to themselves or others, leave them alone. Give them time to settle down and approach them later</td>
</tr>
<tr>
<td>GIVE THEM SPACE</td>
<td>Any activity that involves invasion of personal space increases the risk of assault and aggression. Every time you provide care for the person you are invading their space.</td>
</tr>
<tr>
<td>DISTRACT THEM</td>
<td>Talk to the person about things they enjoyed in the past and give them a face washer or something to hold while you are providing care</td>
</tr>
<tr>
<td>DON’T ARGUE</td>
<td>They are right and you are wrong! The confused brain tells the person they can’t be wrong</td>
</tr>
<tr>
<td>BRAINSTORM</td>
<td>How can you and your team best meet the physical, environmental and psychological needs of the people in your care?</td>
</tr>
<tr>
<td>SECURITY</td>
<td>Don’t hesitate to call security if any real danger persists</td>
</tr>
<tr>
<td>DEBRIEF AND SUPPORT</td>
<td>What was the antecedent, the behaviour, the consequences? Support staff involved. Allow them to vent their feelings. Offer EAP if appropriate</td>
</tr>
<tr>
<td>ONGOING MANAGEMENT</td>
<td>Document the event. Communicate the issue at handover. Develop a management plan. Include family preferences where needed. Use ‘Change in mental status’ sticker, ‘Sunflower calendar’ and ‘This is me’ form</td>
</tr>
</tbody>
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The prevention, detection, assessment and management of Delirium
Prevention of falls

Much of this information is a repeat of the intervention and management strategies. It is repeated because people with delirium automatically become a HIGH falls risk due to their confusion, disorientation, impulsivity and frequently altered elimination (see Falls Prevention Care Bundle, page 27).

If the patient is unable to receive or retain instruction, finds it difficult to judge personal safety, or has impulsive unpredictable behaviour, and altered elimination needs consider:

- **Ensure a safe environment**
  - Bed in low position or use a low bed
  - Provide appropriate least restrictive patient supervision and surveillance
  - Remove unnecessary objects from bedside

- **Observation/monitoring**
  - Visual check every 30 minutes
  - Monitor for environment triggers
  - Consider patient watch

- **Communication**
  - Greet patient every time you walk past
  - One step instructions, do not argue or contradict

- **Mobility**
  - Redirect/provide assistance as required

- **Restraint**
  - Do not use bed rails

- **Medication considerations**
  - Assess for medication that may be adding to confusion

- **Nutrition**
  - Will require directing/prompting

- **Output/elimination**
  - Identify and respond to frequency/urgency/constipation
  - Ensure easy access to toilet
  - Predict increased elimination associated with diuretics/laxatives
  - Look for underlying cause
  - Regular pre-emptive toileting regime to meet need
  - Night light for safe night time toileting

- **Manual handling**
  - Be aware patient may not ask for help, keep aids in reach
Understand that how a person behaves is a form of communication. Behaviours may reflect emotions or unmet needs or may be triggered by physical illness.
## Delirium at a glance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>The risk for delirium increases with age</td>
<td>True</td>
</tr>
<tr>
<td>A patient with impaired vision is at increased risk of delirium</td>
<td>True</td>
</tr>
<tr>
<td>The greater number of medications a patient is taking, the greater the risk of delirium</td>
<td>True</td>
</tr>
<tr>
<td>A urinary catheter in situ reduces the risk of delirium</td>
<td>False</td>
</tr>
<tr>
<td>Poor nutrition increases the risk of delirium</td>
<td>True</td>
</tr>
<tr>
<td>Dementia is the greatest risk factor for delirium</td>
<td>True</td>
</tr>
<tr>
<td>Diabetes is a high risk factor for delirium</td>
<td>False</td>
</tr>
<tr>
<td>Dehydration can be a risk factor for delirium</td>
<td>True</td>
</tr>
<tr>
<td>Hearing impairment increases the risk factor for delirium</td>
<td>True</td>
</tr>
<tr>
<td>Obesity is a risk factor in delirium</td>
<td>False</td>
</tr>
<tr>
<td>A family history of dementia predisposes a patient to delirium</td>
<td>False</td>
</tr>
<tr>
<td>Fluctuation between orientation and disorientation is not typical of delirium</td>
<td>False</td>
</tr>
<tr>
<td>Symptoms of depression may mimic delirium</td>
<td>True</td>
</tr>
<tr>
<td>Treatment for delirium always includes sedation</td>
<td>False</td>
</tr>
<tr>
<td>Patients never remember episodes of delirium</td>
<td>False</td>
</tr>
<tr>
<td>A Mini Mental Status Examination (MMSE) is the best way to diagnose delirium</td>
<td>False</td>
</tr>
<tr>
<td>Delirium never lasts for more than a few hours</td>
<td>False</td>
</tr>
<tr>
<td>A patient who is lethargic and difficult to rouse does not have a delirium</td>
<td>False</td>
</tr>
<tr>
<td>Delirium is generally caused by alcohol withdrawal</td>
<td>False</td>
</tr>
<tr>
<td>Patients with delirium are always physically and/or verbally aggressive</td>
<td>False</td>
</tr>
<tr>
<td>Patients with delirium have a higher mortality rate</td>
<td>True</td>
</tr>
<tr>
<td>Behavioural changes in the course of the day are typical of delirium</td>
<td>True</td>
</tr>
<tr>
<td>A patient with delirium is easily distracted and/or has difficulty following a conversation</td>
<td>True</td>
</tr>
<tr>
<td>Patients with delirium will often experience perceptual disturbances</td>
<td>True</td>
</tr>
<tr>
<td>Altered sleep/wake cycle may be a symptom of delirium</td>
<td>True</td>
</tr>
</tbody>
</table>
The Confusion Assessment Method (CAM) tool (see below) is a valid and reliable diagnostic tool for delirium. It was specifically designed for use with the hospitalised older person, to improve delirium identification and recognition. It provides a standardised method to enable non-psychiatric clinicians to detect delirium quickly. The CAM was developed by Inouye et al in 1988-1990 and its performance attributes have been assessed in a number of studies.

It requires the presence of:
- Acute onset of symptoms
- Fluctuating course
- Inattention and either
  - Disorganised thinking
  - Or an altered level of consciousness

The CAM tool may need to be assessed over a 24 hour period to capture fluctuations. Delirium should be considered a medical emergency until proved otherwise. These people may be seriously ill and have a high mortality. If there is any difficulty distinguishing between the diagnoses of delirium, dementia, or delirium superimposed on dementia, treat for delirium first.

Confusion Assessment Method (CAM)

Order from Fuji Xerox Design and Print using code A1387HWF (double-sided A4 form)
Falls prevention Essential Care Bundle

Order from Fuji Xerox Design and Print using code G3362HWF (single-sided A4 form)

Other tools:
- Sunflower calendar - Page 26
- Delirium information for relatives and visitors brochure - Page 27
- Change in mental status sticker - Page 27
- This is me form - Page 28
Sunflower calendar

Fill in dates and mark each day. Encourage family to do this also.

Order from Fuji Xerox Design and Print using code G3363HWF (single-sided A3 laminated poster)

Developed from the work done by Anthea Temple for the New South Wales Agency for Clinical Innovation Care of the Confused Hospitalised Older Person Study (CHOPS). Presentation at AAG Conference, Sydney 2013.
Support for families

Delirium information for relatives and visitors brochure

Order from Fuji Xerox Design and Print using code G1688HWF (DLE brochure)

Change in mental status sticker

When a delirium first develops a change in status sticker will be completed and put in the patient’s clinical record to alert staff to the change in patient management and care required.

Order from Fuji Xerox Design and Print using code G3364HWF (A4 sheet with 8 labels per sheet)
This is me form
Order from Fuji Xerox Design and Print using code G3365HWF (*single-sided A4 form*)

<table>
<thead>
<tr>
<th>This is me</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like to be called:</td>
</tr>
<tr>
<td>The following routines are important to me:</td>
</tr>
<tr>
<td>Things that may worry or upset me:</td>
</tr>
<tr>
<td>What/who make me feel better if I am anxious or upset:</td>
</tr>
<tr>
<td>My interests are:</td>
</tr>
<tr>
<td>Other notes about me:</td>
</tr>
</tbody>
</table>

*Website: [Delirium Network](http://www.deliriumnetwork.org)*
Acknowledgements:

Thanks to the Waikato District Health Board delirium stakeholder group who supported the development of a delirium pathway and resources. Specifically thanks to Paul Reeve, Sarah Fowler, Colin Patrick and Wayne de Beer for their contributions. This resource was originally developed by Christine Marra, nurse educator, Older Persons and Rehabilitation, Waikato DHB. Changes have been made with her involvement and consent.

Belinda Macfie and Perrin Aish, nurse managers/project leads.
The prevention, detection, assessment and management of Delirium