# Aged Care Network

# Delirium Model of Care

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## FOREWORD

Delirium is a geriatric syndrome that has many deleterious effects for the older person, family and carer. Delirium is often unrecognised, undiagnosed and untreated.

Delirium can severely impact on the older person's recovery from an acute event such as a hip fracture. It can cause significant cognitive and functional decline, pressure sores, incontinence, falls and injuries, relocation to residential care and increased mortality.

As it is a disturbance of consciousness, attention, cognition and behaviour, delirium can often be confused with other conditions such as dementia, a psychotic episode or depression. Delirium may be obvious when an older person presents to hospital or it may arise later during a hospital admission.

The current hospital environment and clinical care system is often perilous for older patients vulnerable to delirium. They are subject to long waiting times in emergency departments, a stressful environment associated with multiple staff, disturbed sleep, discomfort, excessive lighting and noise, possible dehydration and limited access to appropriate pain relief.

Often patients presenting in emergencies come without glasses or hearing aids, which limits their ability to remain oriented and communicate their needs.

The key challenge of the proposed service delivery Model of Care for Delirium and the Older Person is for care givers across the continuum of care to become aware of the syndrome of delirium and recognise the adverse impact it can have on an older person.

There are significant improvements to current practice for the treatment and prevention of delirium described in this model of care that target the prevention of functional decline, prevent avoidable admission to hospital, reduce length of stay in hospitals and reduce re-admissions to hospital.

The proposed model of care proposes access to sub-speciality review and advice regarding the management of delirium, which should be available during working hours through a consultation and liaison service to all wards across a hospital.

The model builds on seminal developments in old age psychiatry and geriatric medicine consultation and liaison services across the WA health sector and aligns with a national and state focus on best practice.

While the Delirium Model of Care advocates the use of validated screening tools and pathways to detect and manage delirium, in older people, the strength of the model is a more sensitised approach to the basic care of older people, particularly in the acute care setting.

Dr P Goldswain
**Clinical Lead**
**AGED CARE NETWORK**

**ACKNOWLEDGEMENTS**

The development of the *Model of Care for Delirium and the Older Person* in WA was dependent on the collective membership of the Aged Care Network Sub-group for Delirium Services, and others co-opted for advice. The time, expertise, willingness to attend meetings around busy work schedules and a collaborative approach was invaluable in providing direction and guidance for the development of the model.

Particular thanks goes to the core group including

| | |
|---|---|
| Dr Sean Maher | Geriatrician – RPH and Bentley |
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| Andrew Hill | Clinical Nurse Consultant Aged Care |
| Brian Piercy | Project Support - Aged Care Policy Directorate. |

In addition to the core group, Dr Peter Goldswain, Anne Riordan and Rebecca Shepherd have coordinated effort to develop the model.

Special thanks goes to Hilary Johnston, who willingly and efficiently provided data to support the work of the Sub-group.

## RECOMMENDATIONS

### Recommendation One: Best Practice Frameworks

Adoption of:

- The Clinical Practice Guidelines for the Management of Delirium in Older People [1]
- Australian Society for Geriatric Medicine Position Statement No.13 Delirium in Older People [2] and
- Age – Friendly principles and practices [3] endorsed by the Australian Health Ministers in July 2004 to ensure that health care settings are age-friendly.

### Recommendation Two: Screening and Diagnosis

- Systematic cognitive screening of older persons at key points in the care pathway at entry points into hospitals, emergency departments, and at sentinel points of transition for the presence of delirium.
- Strengthening of Emergency Department Care Coordination Teams and ward based screening protocols, to ensure risk screening and assessment processes are timely in relation to preventing and detecting delirium.
- Increase support and awareness of delirium for General Practitioners in order to improve diagnosis and treatment in the community setting.

### Recommendation Three: Clinical Pathway and Diagnostic Tools

Adopt the following protocols to detect and manage delirium:

1. Simple risk screening questions on admission
2. Abbreviated Mental Test Score (AMTS) for preliminary testing
3. Confusion Assessment Method (CAM) for formal diagnosis
4. Pharmacological and non-pharmological management and treatment protocols
5. The recommended pathway for screening for delirium at key sentinel points
6. An electronic portal to be created on the WA Health Intranet and linked to the Delirium Model of Care that offers easy access to these tools.

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[1] Clinical Practice Guidelines for the Management of Delirium in Older People. Victorian Government Department of Human Services. Victoria. 2006. www.health.vic.gov.au/acute-agedcare

[2] 14 September 2005. Guiding documents for development work and quality measures (including performance indicators) in all health settings, including training, clinical improvement and development of delirium care pathways.

[3] Age-friendly principles and practices - managing older people in the health service environment. Australian Health Ministers' Advisory Council (AHMAC) Care of Older Australians Working Group. 2004.

**Recommendation Four: Geriatric and Aged Care Consultation and Liaison Services**

- Formalised access and partnership between non-geriatric specialist areas and Geriatric and Aged Care Services in relation to assessment and management of patients with delirium.

**Recommendation Five: Old Age Psychiatry Consultation and Liaison Services**

- Formalised access and partnership between non-geriatric specialist areas and old age psychiatry liaison services in relation to assessment and management of patients with delirium.

**Recommendation Six: Implementation**

- Implementation of the Delirium Model of Care should occur in all hospitals in WA Health, irrespective of the level of hospital, in recognition of the need to incorporate management of delirium as part of basic standards of care provided at a public hospital in WA.

**Recommendation Seven: Education and Training**

- All hospitals and health services are required to develop and implement targeted delirium education strategies through education and staff training frameworks.
- Medical, nursing and allied health, including pharmacy should include the topic of delirium within curricula, orientation and training.
- An electronic portal to be created on the WA Health Intranet and linked to the Delirium Model of Care that offers easy access to education tools for delirium.

**Recommendation Eight: Carers as Partners in Care**

- Carers (and the older person with or at risk of delirium) should be provided with information and education that assists them to understand delirium, its effects and the support needs of the person with delirium.
- All health services to target carers as key partners in the care of the older person with delirium, incorporating “Prepare to Care” information through Carers WA [4] and include information specific to delirium.

[4] http://www.carerswa.asn.au/supportforyou/hospitalsproject.asp

## Key Features

- user friendly portable tool kit to screen, diagnose and manage delirium which includes the assessment tool and points at which to apply.
- focus on prevention, early identification and management of delirium in the older person. Clinically, early identification requires systematic screening for risk factors for delirium and evidence of recent cognitive decline. This should include a baseline cognitive function assessment.
- access to geriatric medicine and old age psychiatry specialist consultation that assists with diagnostic and management difficulties that arise in those who develop delirium.
- improved and timely access to geriatric medicine and old age psychiatry specialist advice and expertise across acute, sub-acute, community and residential care, including formalised systems of access and referral to optimise early diagnosis and management of delirium.
- assessment, treatment and care is multidisciplinary and is informed through training, ensuring that staff are cognisant of the needs of the older person and sensitive and responsive to an older person's care needs and fluctuating care needs.
- treatment and care are "age friendly" and specific to the care needs of the older person.
- better management of older people with delirium in the acute setting, including appropriate discharge planning and strengthening post-hospital delirium care.
- the older person and their family and carer are recognised and included as partners in care.

## Objectives

The overarching aim is to strengthen and realign service provision according to best practice to:

- improve the prevention of delirium across the continuum, focussing on preventing functional decline
- identify delirium promptly to treat the medical causes and provide timely and effective symptomatic treatment and care planning
- reduce hospital lengths of stay, reduce hospital readmissions and prevent avoidable admissions (and reduce time spent in the emergency department)
- prevent premature admission to residential aged care
- reduce poor clinical outcomes, including cognitive decline and mortality, and
- improve the quality of life for the older person, their family and carers.

# OVERVIEW

## Scope

This document outlines the key elements of a service delivery Model of Care for Delirium and the Older Person.

The model focuses on best practice, a clear set of principles and the older person's journey across the continuum of care.

Establishing this model of care in the acute care sector is a way to reduce hospital costs through reduced length of stay, preventing complications and hospital readmissions while at the same time improving the quality of life of older persons by promoting a culture of preventing functional decline.

It is important to note that changes in the acute care sector will produce significant related benefits in health service and community care settings.

This service model of care forms part of the *Aged Care Network Model of Care for the Older Person in WA*[5] and is founded on the underlying conceptual and strategic framework of the State Aged Care Plan[6], aligning with the National Action Plan[7] and Council of Australian Governments' priorities across aged care service provision[8].

[5] Model of Care for the Older Person in WA. Aged Care Network. Department of Health. WA. 2007 http://www.healthnetworks.health.wa.gov.au/agedcare/docs/Model_of_Care_Policy.pdf

[6] http://www.health.wa.gov.au/publications/documents/sacp0308.pdf

[7] From hospital to home, Improving care outcomes for older people - A National Action Plan for improving the care of older people across the acute-aged care continuum - 2004-2008. AHMAC Care of the Older Australian Working Group. July 2004. www.health.vic.gov.au/acute-agedcare/national-action-plan.pdf

[8] COAG Communiqué February 2006 www.coag.gov.au/meetings/100206/index.htm

## Defining Delirium

The Australian and New Zealand Society for Geriatric Medicine makes the following statements concerning delirium through its Position Statement No.13: Delirium in Older People.

> *Delirium is a "syndrome characterized by the rapid onset of impairment of attention that fluctuates, together with altered consciousness and impaired cognition".* [9]
>
> *Older people are at particular risk of delirium. It is associated with increased rates of cognitive and functional decline, prolonged hospital stay, relocation to residential care and mortality.*
>
> *It is often either not diagnosed or is misdiagnosed.*
>
> *There is often a strong element of iatrogenicity in the precipitating factors contributing to many episodes of delirium, emphasising the need for better quality of care of older people.*
>
> *Good quality research studies regarding risk factors, prevention and prognosis exist for hospitalised patients. However, treatment of established delirium is consensus rather than evidence based and little is known about delirium in residential care. There is an urgent need to provide better quality comprehensive geriatric care which will require institutional and systemic changes.*

[9] Australian and New Zealand Society for Geriatric Medicine Position Statement No.13 Delirium in Older People. 14 September 2005.

# 1. DRIVERS FOR CHANGE

## 1.1 National professional initiatives and best practice guidelines

Nationally, there are several drivers for change. The importance of delirium as an issue affecting older people, and often linked with health care itself, has been emphasised in recent work in aged care.

Two documents which provide a strong and convincing argument that all reasonable efforts need to be made in delirium prevention and management are:

- Australian Health Ministerial endorsement of national clinical guidelines - *"Clinical Practice Guidelines for the Management of Delirium in Older People"* [10] has provided impetus for the application of the guidelines across the health care sector reaching at a national level.

The WA Department of Health, on behalf of the Minister for Health, who endorsed these guidelines at AHMAC, will seek to implement the guidelines across the health care sector.

- The "*Australian Society for Geriatric Medicine Position Statement No.13 Delirium in Older People"* as the national peak professional clinical body has recognised the need for delirium to be considered in the care and treatment of older people across the continuum of care.

Recent national initiatives that seek to improve the care of older people across the acute-aged care continuum, to enhance the coordination of care and to support the development of more age-friendly care settings include the Australian Health Ministers' Advisory Council (AHMAC) National Action Plan (AHMAC, 2004) and the Council Of Australian Government (COAG) 'Long Stay Older Patients' Initiative (2006).

These initiatives have incorporated steps to screen and assess for the presence of delirium in the health care setting.

## 1.2 Research Evidence

The key document and foundation of this model of practice, the Australian "*Clinical Practice Guidelines for the Management of Delirium in Older People"* is supported by a strong evidence base and research.

The guidelines are "based on a comprehensive structured review of the evidence to answer specified clinical questions pertaining to prevention, recognition, diagnosis, treatment and risk factor assessment of delirium in older people".[11]

There are numerous research studies highlighting poor rates of detection of delirium, prevalence and incidence and complications. Delirium increases the risk of adverse outcomes, including length of stay, complications, cognitive and functional decline, nursing home admission and mortality.

[10] Clinical Practice Guidelines for the Management of Delirium in Older People. Victorian Government Department of Human Services. Victoria. 2006. www.health.vic.gov.au/acute-agedcare

[11] page 5, ibid.

**The key findings in the research literature point to the following:**

- Delirium is an acute condition with poor outcomes for patients and family carers. Ski and O'Connell (2006) asserted that delirium is under-diagnosed and mistreated in 94% of older patients in hospital, and that the problem is likely to worsen in Australia as the aged population increases. [12]
- A diagnosis of delirium extends the length of stay in the acute setting and results in more frequent residential care placement, with mismanagement of delirium placing patients at risk. [13] [14]
- Delirium leads to increased morbidity and mortality, and is associated with in-hospital mortality rates of 25 – 33%.[15] [16] Delirium is reported as the most common post operative complication in older people, including after emergency procedure/s and elective procedures.
- Patients with delirium are three times as likely to have falls, pressure sores and incontinence.[17] Delirium after hip fracture increases the risk of poor functional outcome, decline in ambulation and death or nursing home admission by nearly 3 times.[18] There is considerable evidence that during hospitalisation an older person, due to bed rest and immobility is at significant risk of de-conditioning and irreversible functional decline.[19]
- Approximately one-third to one half of patients who experience delirium are likely to be diagnosed with dementia within 12 months of the episode. [20] [21]
- These features of delirium increase the burden on family carers and community services (including residential care).

**The need for further research**

- "The Clinical Practice Guidelines for the Management of Delirium in Older People" under the heading "Future Directions" (p67) describes the "…lack of research in delirium care, particularly in the areas of screening for delirium and symptom management …including epidemiological research, in the Australian setting [and of] well designed research that focuses on the needs of the ATSI population…[and lack of] well designed research in residential care and in community settings".

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[12] Ski, C. & O' Connell, B. (2006). Mismanagement of delirium places patients at risk. Australian Journal of Advanced Nursing, 23 (3), 42-6.

[13] Stevens, L., de Moore, G. & Simpson, J. (1998). Delirium in hospital: does it increase length of stay? Australian and New Zealand Journal of Psychiatry, 32 (6), 805-8.

[14] Inouye, S. (1998). Delirium in Hospitalised Older Patients. Clinics in Geriatric Medicine, 14 (4), 745-64.

[15] Kwentus, J. (2000). Delirium, Dementia, and Amnestic Syndromes, in Eber, M ., Loosen, P. & Nurcombe, B. Current Diagnosis and Treatment in Psychiatry. Section III. Chapter 17.

Leentjens, A. & Van der Mast, R. (2005). Delirium in Elderly People: An Update. Current Opinion Psychiatry, 18 (3), 325-330.

Rapp, C. & Iowa Veterans Affairs Nursing Research Consortium (IVANRC). (2001). Acute confusion/delirium protocol. Journal of Gerontology Nursing, 27 (4), 21-33.

[16] Inouye SK, Rushing JT, Foreman MD. Does delirium contribute to poor hospital outcomes? A three site epidemiologic study. J Gen Intern Med. 1998; 13: 234-42.

[17] Maher, S. & Almeida, O. Delirium in the elderly: another medical emergency Current Therapeutics, 2002; 39-44.

[18] Marcantonio ER, Flacker JM, Michaels M et al. Delirium is independently associated with poor functional recovery after hip fracture. J Am Geriatri Soc. 2000; 48(6): 618-24.

[19] Best Practice Approach to minimize functional decline in the older person across the acute, sub-acute and residential aged care setting. Department of Human Services. Victoria. 2004.

[20] Inouye, S. (1998). Delirium in Hospitalised Older Patients. Clinics in Geriatric Medicine, 14 (4), 745-64.

[21] Rockwood K, Cosway S, Carver D et al. The risk of dementia and death after delirium. Age and Ageing. 1999; 28: 551-556.

## 1.3 Increase in the older population cohort

The growth in numbers of older people aged 65 years and over (currently 13.4%) to 25% by 2047 and the increase in the group aged 85 years from 1.7% to 5.6% will impact on the numbers of people who will require health and community care services. [22]

The numbers of older patients with delirium is likely to increase relative to population increase over time, as age is a strong risk factor for the development of delirium. The research consistently suggests that people who enter hospital aged 70 and over are at risk of developing delirium.

## 1.4 Prevalence rates of delirium in the hospital setting

The following table collates some of the available data on delirium incidence and prevalence rates in different care settings in the hospital environment. [23]

| **Delirium incidence and prevalence in different patient populations** | |
|---|---|
| **Hip surgery (elective and non - elective)** | 40.5-55.9% incidence in hip fracture surgery patients 60 years and over |
| | 14.7% incidence in elective hip surgery patients 60 years and over without severe dementia |
| **Cardiac surgery** | 32% incidence in patients, aged 65 years or more, who have undergone CABG surgery<br><br>Up to 47% incident delirium in cardiac surgery patients |
| **General medical** | 15-20% prevalence at time of admission to ward<br><br>18% prevalence of patients 65 years and over within 72 hours of admission, and a further 2% incident delirium up to 1 week following |
| **Emergency departments** | 5-10% prevalence rates |
| **Intensive care units** | 83-87% incident delirium in all admitted patients<br><br>70% prevalence of delirium of all patients 65 years or over, during their ICU stay and up to 7 days post discharge |
| **Long term care** | 40.5% 14 day period-prevalence from US state minimum data set<br><br>52.6% of hospital older patients from long term care experienced delirium during their hospital admission |
| **Hospital admission** | 10-15% of older patients had prevalent delirium on hospital admission<br><br>29.7% of hip fracture patients were delirious on admission to hospital or developed delirium pre operatively<br><br>21.6% of hospital older community dwelling patients experienced delirium during their hospital admission |

[22] For an analysis of projected aged population growth rates in WA see "Model of Care for the Older Person in Western Australia" page 5. Aged Care Network. 2007. http://www.health.wa.gov.au/healthnetworks/index/cfm.publications

[23] page 27, Clinical Practice Guidelines for the Management of Delirium in Older People. Victorian Government Department of Human Services. Victoria. 2006. www.health.vic.gov.au/acute-agedcare

It is estimated that around 10-15% of older people admitted to hospital are delirious at the time of admission and a further 5% - 40% are estimated to develop delirium while in hospital. [24]

### 1.5 Prevalence rates for delirium in Western Australia

The prevalence rates from research and knowledge of presentations of aged persons to the emergency department, admissions to hospital and other treatment pathways and locations where the risk for delirium is high, can reliably provide a means to estimate the burden of disease for health services in WA.

Using prevalence rates identified for particular patient populations it can be assumed that between 7 and 9.6 per cent of older people presenting at hospital Emergency Departments are likely to have delirium. [25]

In the table below, the lower prevalence rate is applied to the known number of Emergency Department presentations during 2005/2006. [26]

Therefore, in 2005/2006 at **least 5,960 people** were likely to have had delirium on presentation to Emergency Departments in Western Australia.

| **Health Service** | **Hospital** | **2005/2006 Emergency Department presentations, 65+ years** | **Estimated minimum number of presentations where people have delirium** |
|---|---|---|---|
| **North Metropolitan Area Health Service** | King Edward Memorial Hospital | 178 | 12 |
| | Sir Charles Gairdner Hospital | 15,021 | 1,051 |
| | Swan District Hospital | 5,014 | 351 |
| **South Metropolitan Area Health Service** | Royal Perth Hospital | 12,615 | 883 |
| | Fremantle Hospital | 10,637 | 745 |
| | Armadale/Kelmscott | 5,244 | 367 |
| | Rockingham/Kwinana | 5,106 | 357 |
| **Western Australian Country Health Service (divided by regions)** | South West | 8,699 | 606 |
| | Goldfields/SE Coastal | 2,705 | 190 |
| | Great Southern | 5,028 | 352 |
| | Kimberley | 3,227 | 226 |
| | Midwest/Murchison | 5,422 | 380 |
| | Pilbara/Gascoyne | 1,777 | 124 |
| | Wheatbelt | 4,491 | 316 |
| **Total** | | **85,164** | **5,960** |

[24] Britton A and Russell R. Multi-disciplinary team interventions for delirium in patients with chronic cognitive impairment. (update of Cochrane Database Systematic Reviews, 2001; (1) CD000395; PMID:11279689). The Cochrane Database of Systematic review. 2005(2):p.CD000395.

[25] Hustey, F., Meldon, S., & Palmer, R. (2000). Prevalence and documentation of impaired mental status in Emergency Department patients. Academic Emergency Medicine, 7 (10), 1166.

[26] WA Hospital Morbidity Data System, Department of Health. 2007.

Equally, if the lower prevalence rate is applied to WA hospital admission numbers in 2005/2006, **at least 13,895** people per annum were likely to have developed delirium during the stay in hospitals in Western Australia.

| **Health Service** | **Number of acute inpatient separations, 65+ years, 2005/2006** |
|---|---|
| North Metropolitan Area Health Service | 39,038 |
| South Metropolitan Area Health Service | 62,787 |
| Western Australian Country Health Service | 22,540 |
| Privately managed public hospitals - Peel and Joondalup | 14,593 |
| Estimated minimum number of people likely to develop delirium, all patients - (applying prevalence rate of 10%) | **13,895** |

### Current data collection – delirium prevalence

The Department of Health, Health Morbidity Data Set (HMDS) collects delirium as a diagnosis through hospital data collection systems.

In comparison to estimated prevalence levels indicated above, it is clear that the data set may not reliably capture the prevalence of delirium in the WA aged population. This is demonstrated in the following table which illustrates the count of WA public hospital in-patient separations and bed days (non-psychiatric) for persons aged over 65 years in 2006-2007. [27]

| **Delirium** | | |
|---|---|---|
| **Area of hospital** | **Separations** | **Bed-days** |
| Perth Metro | 885 | 19,036 |
| WA Country | 390 | 7,758 |
| **Total** | **1,275** | **26,794** |

The number of in-patient separations clearly do not compare with the estimated prevalence numbers calculated for 2005-2006 (1275 compared to an estimated

13, 895 separations).

The reason for such disparity may due to the fact that it is often unrecognised, under-diagnosed and untreated as a condition in itself. This lack of detection of a significant health condition and underreporting exacerbates the greater possibility of no diagnosis, misdiagnosis, and/or lack of treatment for the older person.

[27] WA Hospital Morbidity Data System, Department of Health. 2007

## 1.6 Identified gaps in service in WA – where are the improvements to be made?

The Aged Care Network Delirium Model of Care sub-group provided the following qualitative analysis of gaps in service delivery and clinical practice across the health care sectors. (For a description of current service delivery patterns and a full outline of identified gaps see Appendix One).

Across the health sector, primary care and community care sector the following is evident:

- There has been no prior attempt in WA to develop a state-wide model to specifically address delirium in the older person.
- There is no systematic screening of cognition, delirium or risk factors for delirium.
- There is low awareness of Delirium as a discrete clinical syndrome, its predisposing and precipitating factors and the consequence of significantly increased morbidities and mortality.
- Medical and nursing staff often have limited skills and training in managing delirium and associated challenging behaviours. Staff are often not aware of risk factors for delirium, mental state assessments and differential diagnoses and appropriate behaviour management strategies.[28]
- There is limited and inconsistent access to consultation, liaison and advice from geriatricians and old age psychiatrists.
- Carers are not included as partners in care with often limited communication with the patient and family/carers regarding the diagnosis, management and prognosis of delirium.
- Standardising care, with consistency of screening and assessment, will assist research by providing a stable foundation on which future research on the effectiveness of prevention and treatment approaches can stand.
- Delirium Units at Sir Charles Gairdner Hospital and at Fremantle Hospital provide valuable service and operational models that may inform design of a delirium unit and/or behaviour management unit at major hospitals.

[28] NMAHS and SMAHS have developed some localised training and education material; refer to RPH and SCGH delirium projects.

## 2. FUTURE SERVICE DELIVERY MODEL OF CARE FOR DELIRIUM IN WA

### Principles

The following principles underpin the model of care and should be reflected at every point along the continuum from home/residential care, through the emergency department, the inpatient "non-geriatric" settings, "specialist geriatric" settings and post –hospital and non-acute settings and in the community.

- **Prevention** of delirium – early identification of risk and commencement of preventative protocols.
- **A foundation of Essential Care** – ensuring an age friendly environment, removing or decreasing known risk factors for delirium, providing safety, hydration, and oxygenation.
- **Early identification of onset** irrespective of location – regular cognitive screening and targeted cognitive screening at relocations and changes in health status/treatment (*regular cognitive screen as part of nursing observations*).
- Early identification and treatment of cause
- Early assessment and care planning – ensuring multi-disciplinary input/teamwork including medical, nursing, allied health and pharmacy.
- **System wide access to appropriate care settings and human resources for optimal management of delirium.** Settings and resources should allow opportunity for patients to mobilise safely, have optimal levels of stimulation, regular reorientation and reassurance.
- Assessment and treatment plans communicated between care and treatment settings.
- Recognising the importance of the older person with or at risk of delirium and their family/carers as partners in care, through involvement, provision of support, information and education.
- **System wide access to aged care expertise** - geriatricians and old age psychiatrists, specialist nursing and allied health.
- **System wide delivery of training/education** – strategically targeting key settings and professional groups (Medical, Nursing, Allied Health, Pharmacy).
- **Treatment and care is culturally appropriate and is tailored to the needs of the individual.** Consideration must be given to the needs of Aboriginal and Torres Strait Islanders [29] and Culturally and Linguistically Diverse populations.

[29] http://www.aboriginal.health.wa.gov.au/healthinfo/docs/Cultural_Respect_Framework.pdf

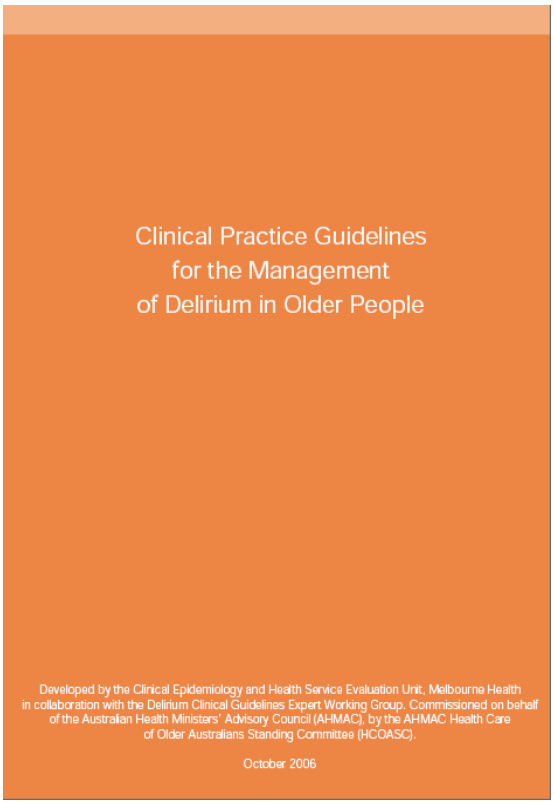
## 3. CLINICAL PRACTICE STANDARDS

### Best Practice Framework for Delirium

The following represents a set of foundation documents that should be used by all health services and clinicians to benchmark current service delivery for delirium prevention, detection and treatment.

**The key resource documents specific to managing delirium include:**

- Australian "Clinical Practice Guidelines for the Management of Delirium in Older People". www.health.vic.gov.au/acute-agedcare/delirium-cpg.pdf
- Australian Society for Geriatric Medicine Position Statement No.13 "Delirium in Older People", 2005. www.asgm.org.au/documents/PositionStatementNo13_001.pdf




# **NOTE** The Health Care of Older Australians Standing Committee has commissioned the development of a **national delirium pathways** resource – for publication in 2008

Key resource documents specific to managing older persons also include:

- Best practice approaches to minimize functional decline in the older person across the acute, sub-acute and residential aged care settings. November 2004. www.health.vic.gov.au/acute-agedcare/functional-decline-manual.pdf
- A guide for assessing older people in hospitals. September 2004. www.health.vic.gov.au/acute-agedcare/assessing-older-people.pdf
- Age-friendly principles and practices - Managing older people in the health service environment. July 2004. www.health.vic.gov.au/acute-agedcare/age-friendly-principles-and-practices.pdf

# 4. PARTNERS IN CARE - THE PATIENT JOURNEY

**Common Elements**

The treatment of delirium involves the following key partners:

- Access to geriatric medicine and old age psychiatry expertise

Geriatricians and old age psychiatrists will manage many patients with delirium, but care will need to be shared with other specialists and general practitioners.

Therefore, consultation and liaison services are vital to extend their expertise where needed across all wards. This particularly applies to patients who:

- have multiple co-morbidities
- are frail
- who may need rehabilitation
- where the diagnosis is not clear or
- where behavioural problems are significant.

At an organisational level, and state-wide (with particular reference to WACHS), a formalised system of access to expertise and assessment to provide timely consultations should be established.

Tertiary hospitals will have Acute Care of the Elderly (ACE) units as well as Geriatric Evaluation and Management (GEM) units where delirium can be monitored. [30]

Secondary hospitals will have rehabilitation units and be a hub for community services to provide advice for general practitioners, community service providers and residential care.

Secure older age mental health units will be available at secondary hospital locations. Rural and remote areas will have access to visiting geriatricians and old age psychiatrists as well as consultation via telehealth.

- Nursing across the patient journey

Nursing will play a pivotal role in implementing the key features and principles of this model.

Nursing is most often the first and most frequent presence in patient care whether in the emergency department, in the care coordination team, in the inpatient settings, in restorative and rehabilitative care, and in residential care.

Nursing will be best placed to facilitate best practice “on the ground” in the clinical processes of early baseline cognitive screening and establishing foundations of essential care and preventative strategies.

It may be appropriate for nursing to explore embedding delirium care as a nursing standard, and specifically that screening for cognition should be included as a standard nursing observation for those at risk of delirium.

Nursing should be provided with targeted education in all aspects of delirium care.

[30] Discussion regarding ACE units, will be included in the forthcoming Aged Care Network Model of Care – Management of Elderly People in the Emergency Department. The Aged Care Network Geriatric Evaluation and Management (GEM) Model of Care is at http://health.wa.gov.au/agedcare/home/moc.cfm

- Allied Health across the journey

Strategies to prevent functional decline and management plans for delirium should have a multidisciplinary focus. Mobility, safety, social supports and other areas of care will require the professional assessment and intervention of members of the multidisciplinary team. Allied health also provides a functional link to assist in continuity of care from the acute setting to the community as part of discharge.

- The Pharmacist

The pharmacist should also be an integral part of care planning. Medication reconciliation and management across the whole of patient journey is a central element of delirium care and prevention of delirium.

- Carer as partner

From the first event at home, the carer and family should be treated as partners in care with provision of information and education and clear communication. Carers' observations of changing cognitive state and their familiarity with the older person will often be invaluable to the clinical team. Carers are also a significant resource in any strategy to prevent onset and reoccurrence of delirium.

The "Prepare to Care" program developed through Carers WA provides information and support for the carer aimed at assisting carers in the smooth transition from hospital to home. The program includes a free resource pack and an opportunity to speak to a Carer Support Officer [31].

Additional strategies should be considered. *The Hospital Elder Life Program* (HELP) and associated volunteer program *The Recruitment of Volunteers to Improve Vitality in the Elderly* (ReVIVE), [32] [33] emphasise the need for care and programmes tailored to the needs of the older person with or at risk of delirium. Outlines of these programs are included in Appendix Seven.

- Addressing cultural diversity – cultural competence

Development of clinical and care processes relevant to the needs of CALD and ATSI populations is vital. At the clinical interface, utilisation of interpreters and translated medical information should be standard practice.

Currently, there is no specific culturally relevant delirium screening tool for ATSI and CALD groups.

For ATSI patients, specific reference is to the WA Cultural Respect Framework[34] and the need to ensure presence of cultural partners. Development work on the Kimberly Indigenous Cognitive Assessment tool (KICA) is an example of focused work in this area. [35]

It is essential that culturally and linguistically accessible information is given some priority when dealing with older people with delirium and their carers. The use of interpreters, communication aids, liaison officers and close involvement with the family/carer is essential.

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[31] http://www.carerswa.asn.au/supportforyou/hospitalsproject.asp
[32] www.archi.net.au/__data/assets/pdf_file/0005/47957/ReViVe_moc.pdf
[33] http://elderlife.med.yale.edu/public/public-main.php
[34] http://www.aboriginal.health.wa.gov.au/healthinfo/docs/Cultural_Respect_Framework.pdf
[35] www.healthykimberley.com.au/chronicdisease.html and http://www.healthykimberley.com.au/chronic/Kimberley%20Indigenous%20Cognitive%20Assessment%20(KICA).pdf

The RUDAS (Rowland Universal Dementia Assessment Scale) is commonly used for people with poor English language skills. It is a validated tool for multi-cultural cognition screening for dementia and can be adapted for use in detecting delirium.[36]

- WA Country Health Services

Country health service providers are faced with the challenges of distance and isolation, attaining the appropriate skills mix to provide high quality care, difficulties in planning due to a variable workload, and the inability to benefit from economies of scale. Nonetheless, delirium should be given attention within clinical service planning as part of an overall focus on care of the older person.

**Care in the Community**

Symptoms of delirium continue beyond the episode of hospitalised care and symptoms must be managed in the community. Not much is known about delirium in the post-hospital period and little is known about the course of delirium. Assessing patients for delirium and implementing effective nursing interventions in the home care setting may reduce the intensity of resource use and hospital readmissions.

Not only does delirium persist after hospitalisation, it commonly recurs. [37] Approximately one-third - to one half of patients who experience delirium are likely to be diagnosed with dementia within 12 months of the episode. [38] Cognitive decline is evident in survivors of delirium. In one study, the relative risk of developing dementia after delirium over 3 years was trebled. [39] This may reflect early cognitive impairment unmasked by acute illness and/or irreversible neuronal dysfunction.

The mortality of patients is increased by 10% in the post discharge period of 12 months. [40]

Family carers need information and education to help them to recognise delirium and understand how they need to respond and manage their relative, if and when delirium recurs.

Delirium leads to poor outcomes for patients that in turn affects the role of family carers and increases their burden of care.

**Community discharge and GP management**

Care and treatment for delirium should ensure that the person is discharged when the condition has been fully resolved. The carer and family should be involved in the discharge planning process, and the person's GP should receive full details of their discharge status and planned services.

Appropriate community supports and referral to follow-up services may also be appropriate. For example, it may be necessary to refer the person for a full cognitive assessment post-discharge to determine whether they have dementia as delirium is frequently an early sign of dementia and early identification and intervention may be beneficial for treating this. [41]

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[36] Storey JE, Rowland JT, Basic D, Conforti DA, Dickson HG. The Rowland Universal Dementia Assessment Screen (RUDAS): A multi-cultural cognitive assessment. International Pyscho-geriatrics 2004; 16(1):13-31.
[37] Inouye S. Delirium in hospitalised older patients. Clinics in Geriatric Medicine. 1998; 14(4), 745-64.
[38] Ibid.
[39] Rockwood K, Cosway S, Carver D et al. The risk of dementia and death after delirium. Age and Ageing. 1999; 28: 551-556.
[40] LeentjensA & Van der Mast R. Delirium in Elderly People: An Update. Current Opinion Psychiatry. 2005; 18(3): 325-330.
[41] Rahkonen et al. Delirium episode as a sign of undetected dementia among community dwelling elderly subjects: a 2 year follow-up study. Journal of Neurology, Neurosurgery and Psychiatry. 2000; 69 (4): 519-21.

It is common for discharge to take place when it has not been fully resolved. In this situation, it is essential that the person's family, GP and other relevant service providers are informed of their status and ongoing professional monitoring, treatment and support is followed up.

# 5. SCREENING TO DETECT DELIRIUM – KEY EVENTS

The following processes should set the standard for all health settings when developing guidelines and procedures in relation to delirium prevention, care and management. [42]

## 5.1 Identification and Screening for Delirium

### 5.1.1 Emergency Department Risk Screen Assessment for older patients

It is important to note that time is of the essence when detecting and treating for delirium. In this respect, the risk identification and assessment process needs to happen quickly.

Triage Categories 3, 4, 5

- The Elder Care Pathway risk screening assessment undertaken by Care Coordination Teams [43] in metropolitan Emergency Departments or NAP coordinators in WACHs regional resource hospitals routinely screens for preliminary indicators of risk factors across the following geriatric domains on admission:
  - Mobility, Delirium, Cognition, Continence, Social Isolation, Medical health

The key questions to be asked of an accompanying carer/family member under the domain of **cognition and delirium** should centre around:

- Has there been a change in the patient's cognitive state?
- If this has been the case, how quickly did the change happen?
  (Has it happened over time or did it happen quickly?)

If it is possible and time permits, the following questions could also be asked:

- Does the patient suffer a memory problem?
- Is the patient confused or disorientated?
- Is the patient's behaviour in-appropriate?
- Does the patient have a visual impairment?
- Does the patient have a severe illness?

If there is an indication based on these questions the next step would be to be referred for a comprehensive assessment.

Triage Categories 1, 2

Where older people presenting to Emergency Departments have health conditions demanding prompt attention the timing of administration of the delirium screen needs to be determined by the attending medical team and a medical assessment and level of consciousness.

[42] page 36, Clinical Practice Guidelines for the Management of Delirium in Older People. Victorian Government Department of Human Services. Victoria. 2006. www.health.vic.gov.au/acute-agedcare

[43] A guide for assessing older people in hospitals. Care of the Older Australian Working Group. (COAWG). AHMAC. September 2004.

### 5.1.2 Comprehensive assessment - Baseline Cognitive Function Assessment

- Where a risk for delirium is identified through the preliminary risk-screening process:

A baseline Cognitive Function Assessment should be undertaken as part of the comprehensive assessment.

- use of AMTS or MMSE tool [44]

The tools are portable and efficacious in the sense that they can be used by any member of a CCT who has had basic training in screening and assessment protocols.

Consultation with a geriatrician on the use of the tools may also be beneficial for those who have not had exposure to the tools.

**Comprehensive assessment**

- a multi-disciplinary assessment by the Care Coordination Team (at metropolitan hospitals where there is an ED) or NAP Coordinator (at WACHS sites) is undertaken using appropriate tools to assess for other risk factors identified during the preliminary risk screening process that may contribute to the onset of delirium.

### 5.1.3 Formal Diagnosis

Where there is a positive indication for delirium:

a formal diagnosis using a recognised diagnostic tool such as the Confusion Assessment Method (CAM) [45] should commence.

A Geriatrician, old age psychiatrist, medical officer or Nurse trained in the use of the tool can perform the diagnostic assessment.

[44] AMTS – Abbreviated Mental Test Score; MMSE – Mini Mental State Examination

[45] Inouye SK, Van Dyck CH, Alessi CA, Balkin S, Siegal AP, Horwitz RI. Clarifying confusion: The Confusion Assessment Method. A new method for detection of delirium. Ann Intern Med. 1990; 113: 941-8.

# 6. CLINICAL TOOLS

## 6.1 Delirium screen

The same screening tool for delirium needs to be used throughout a patient's journey through hospital to enable comparisons to be made and changes to be observed.

In most cases, the tool recommended for use as the delirium screen is the Abbreviated Mental Test Score (AMTS). The AMTS is a validated and widely used test consisting of ten questions intended to rapidly assess cognitive function.

The Mini Mental Status Examination (MMSE) is also a validated tool to use for baseline cognition screening.

Examples of these tools are attached at Appendix Three. The tools have been modified to make them user friendly for all health care settings.

The AMTS can be applied in various settings (including outside the hospital setting) and by general clinicians, but, in this case, it is a screen to identify situations in which one or more diagnostic tools for delirium might be applied.

Where a decline in cognitive function is indicated by the repeat screen result, this indicates that further investigation of possible delirium needs to be conducted.

It should be noted that use of the AMTS is not recommended for people from CALD or ATSI backgrounds due to cultural issues around the test. In the absence of a specific suitable tool, awareness of the clinical features of delirium is of particular importance.

The RUDAS (Rowland Universal Dementia Assessment Scale) is commonly used for people with poor English language skills. It is a validated tool for multi-cultural cognition screening for dementia and can be adapted for use in detecting delirium.[46] This tool is also included at Appendix Four.

## 6.2 Diagnostic tools

Should the Delirium Screen (AMTS) indicate a decline in cognitive function during the hospital episode or prevalent issues around cognition, a diagnostic tool should be applied prior to further consultation with a geriatric specialist.

In such cases, it is recommended that a simple diagnostic tool such as the Confusion Assessment Method (CAM) developed by Inouye, van Dyck, Alessi et al. should be used.

This tool is attached at Appendix Five.

## 6.3 Difficulties in detection between the three "Ds".

It is often difficult to distinguish between the conditions of dementia, depression and delirium, particularly in older people where they may be unable to communicate or express their experiences clearly.

In many health care settings, it is often the health professional who is unable to also distinguish clearly, particularly if they are not aware or sensitised to delirium or who have not received training in this area.

[46] Storey JE, Rowland JT, Basic D, Conforti DA, Dickson HG. The Rowland Universal Dementia Assessment Screen (RUDAS): A multi-cultural cognitive assessment. International Pyscho-geriatrics 2004; 16(1):13-31.

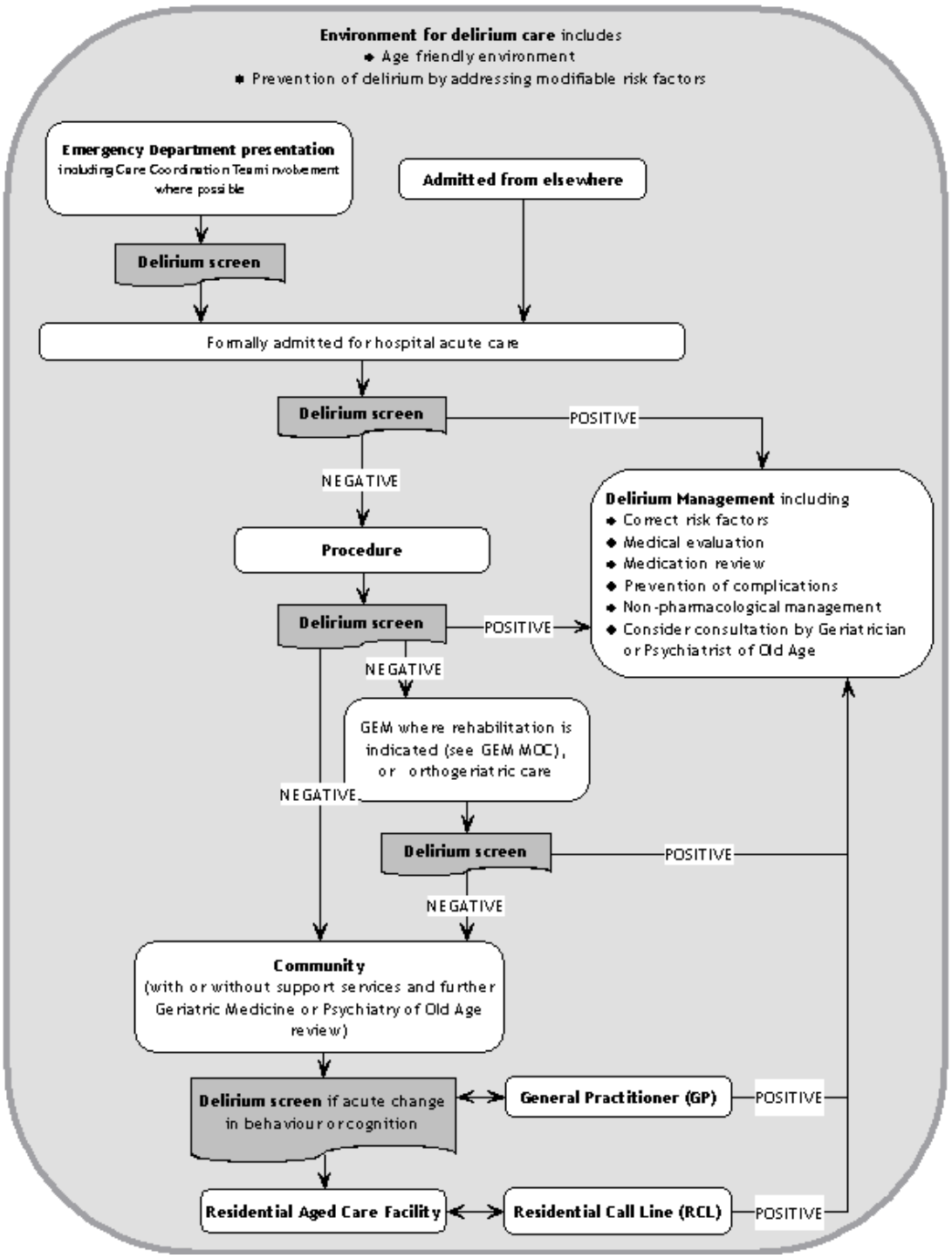
The following table can be used as "ready reckoner" for health care workers and professionals to assist in distinguishing between the three "Ds".[47]

| | **Delirium** | **Dementia** | **Depression** |
|---|---|---|---|
| **Onset** | Acute or subacute | Insidious | Gradual |
| **Duration** | Hours/days/Weeks | Months/years | Weeks/months |
| **Course** | Fluctuates – worse at night<br>Lucid periods, usually during day | Stable and progressive (unless vascular dementia – usually stepwise | Usually worse in morning, improves as day goes on |
| **Activities of daily living (ADLs)** | Gradual decline in ability to do ADLs | Sudden deterioration in ability to do ADLs | Normal |
| **Alertness** | Fluctuates | Usually normal, clear until later stages | Normal |
| **Orientation** | Fluctuates, but will always be impaired in some aspect: time, place, person? | May be normal – usually impaired for time and place | Usually normal |
| **Memory** | Recent impaired | Poor short term memory, attention less affected until severe | Recent may be impaired<br>Remote intact |
| **Thoughts** | Often paranoid and grandiose<br>?bizarre ideas and topics<br>?paranoid | Slowed<br>Reduced interests<br>Perseverant<br>Delusions are common | Usually slowed, and preoccupied by sad and hopeless themes |
| **Perception** | Visual and auditory hallucinations common,<br>Delusions common | ?normal – hallucinations and delusions often absent | About 20% have mood congruent auditory hallucinations |
| **Emotions** | Irritable<br>Aggressive<br>Fearful | Shallow, apathetic, labile, ? irritable, careless | Flat, unresponsive or sad and fearful<br>May be irritable |
| **Sleep** | Nocturnal confusion and/or "sundowning" common | Often disturbed<br>Nocturnal wandering common<br>Nocturnal confusion | Early morning wakening |
| **Other features** | Physical causes may not be obvious | | ? past history of mood disorder |

[47] Commonwealth Department of Health and Human Services 1996. Dementia Kit. Canberra: AGPS.
In use by the Cairns Integrated Mental Health Program – Consultation Liaison Team. Queensland Health.

## Figure 1. Points Along the Continuum Where Screening Should Occur

**Delirium screen** is a standard process that needs to be administered at several key stages in the hospital journey of an older person and includes cognitive assessment (AMT) and use of Confusion Assessment Method (CAM) if changes are detected.



# 7. TREATMENT AND MANAGEMENT

Good management of delirium requires: [48] [49]

- Identifying and treating the underlying causes
- Providing environmental and supportive measures
- Judicious use of drugs aimed at managing symptoms; and
- Following –up with a regular clinical review

## 7.1 Identify and treat the underlying causes

The possible causes of delirium or agitation are outlined below: [50]

| | |
|---|---|
| Metabolic | Hyperthyroidism, hypothyroidism, hypercalcaemia, hyponatraemia, hypoglycaemia, vitamin B12 deficiency, folate deficiency, thiamine deficiency |
| Infections | Urinary tract infection, pneumonia, septicaemia |
| Neurologic | Stroke, subarachnoid haemorrhage |
| Traumatic | Chronic pain, head trauma, fractures such as hip, rib |
| Cardiac | Myocardial infarction |
| Medications | Sedatives, antihistamines, alcohol, anticholinergics |
| Mechanical | Environmental barriers to movement, restraints, wheelchairs |
| Gastrointestinal | Faecal impaction or severe diarrhoea (may cause metabolic problems also) |
| Environment | Changes in environment |

## 7.2 Provide environmental and supportive measures - prevention is the best form of non-pharmacological treatment

Prevention measures for delirium are simple and should be considered as the first measure in managing delirium. The key is to detect the signs early. The signs of delirium are easy to notice but in a time stressed environment they are often missed.

All reasonable attempts to combat the condition with non-pharmacological intervention must be made. Correcting modifiable risk factors is vital.

The key prevention strategies in relation to delirium are:

**Constant monitoring**

- every “place of care” should be required to screen the older person for cognitive decline as a **standard “observation” or “vital” sign** that leads to actions indicated by guidelines informed by a clinical pathway for delirium.

[48] Brown TM, Boyle MF. ABC of psychological medicine – Delirium. British Medical Journal; 2002. 325: 7365, 644-647.
[49] McCusker J, Cole PH, Dendukuri N, Han L, Botzile E. 2003. The course of delirium in older medical inpatients. Journal of General Internal Medicine. 696-704.
[50] Banazak DA. Geriatrics. 1996 51(2): 36-8, 40-2. Difficult dementia: six steps to control problem behaviours.

Signs and symptoms to watch for:

- difficulty focusing, sustaining or shifting attention
- memory impairment
- disturbance of the sleep-wake cycle, for example drowsy during the day and agitated or restless at night
- speech or language disturbances, for example rambling speech
- disorientation to place or time
- disturbance in psychomotor behaviour, for example agitation with increased psychomotor behaviour and sluggishness with decreased psychomotor behaviour
- emotional disturbances such as mood swings that may change over the course of a day
- misinterpretations, illusions or hallucination such as seeing, hearing or feeling things that are not there

**Modifiable risk factors**

The provision of basic standards of care that pay attention to the care needs of the older person is important in the prevention of delirium. An age-friendly hospital environment is also important.

These risk factors outlined below are easily modifiable in the hospital environment in the table on the following page. [51]

[51] page 27, Table 7 – Strategies to prevent delirium. Clinical Practice Guidelines for the Management of Delirium in Older People. Victorian Government Department of Human Services. Victoria. 2006. www.health.vic.gov.au/acute-agedcare

| Environmental strategies | Clinical Practice Standards |
|---|---|
| Lighting appropriate to time of day – windows with a view to outside, curtains and blinds open during the day and minimal lighting at night may reduce disorientation<br><br>Provision of single room – reduces the disturbance caused by staff attending other patients in the same room<br><br>Quiet environment especially at rest times – noise reduction strategies (eg: use of vibrating pagers rather than call bells)<br><br>Provision of clock and calendar that person can see<br><br>Handy access to glasses so that the person can see<br><br>Encourage family and carer involvement – includes encouraging them to visit<br><br>Encourage family/carer to bring in person's personal and familiar objects<br><br>Avoid room changes – frequent changes may increase disorientation | Correct dehydration<br><br>Encourage/assist with eating and drinking to ensure adequate intake<br><br>Ensure that patients who usually wear hearing and visual aids are assisted to use them<br><br>Regulation of bowel function - avoid constipation<br><br>Encourage and assist with regular mobilisation<br><br>Encourage independence in basic ADLs<br><br>Medication review<br><br>Promote relaxation and sufficient sleep – can be assisted by regular mobilisation, massage, encouraging wakefulness during the day<br><br>Manage discomfort or pain<br><br>Provide orienting information including name and role of staff members<br><br>Minimise use of indwelling catheters<br><br>Avoid use of physical restraints<br><br>Avoid psychoactive drugs<br><br>Use of interpreters and other communication aids for CALD patients/clients<br><br>Use of ATSI Liaison officer for ATSI patients/clients |

## 7.3 Pharmacological Management Pathway

The *Clinical Practice Guidelines for the Management of Delirium in Older People* recommends a pharmacological management pathway as well as a number of non-pharmacological interventions to treat hyper-active, hypo-active and mixed delirium and associated behavioural manifestations of delirium symptoms.

The Clinical Practice Guidelines recommend that antipsychotic medication "should only be used for the treatment of severe behavioural disturbance and/or severe emotional disturbances and when there is a clear intent for its use, for example severe agitation interfering with the sleep-wake cycle". [52]

However, usually in consultation with an old age psychiatrist, it may be necessary to embark on a pharmacological management pathway.

A clear protocol should be developed in each hospital. An example of such a protocol that has been developed by Royal Perth Hospital (see Appendix Six).

This protocol reflects the recommendations outlined in the Clinical Guidelines.

**When used:**

- Aim to use one drug and optimise first line treatment
- Keep doses to a minimum
- Avoid escalating doses
- Seek advice
- Review prescription daily

| |
|---|
| The indication(s) for its use must be **documented and reviewed regularly.** |
| Commencement of an antipsychotic should be accompanied by documented recommendations about:<br>1. the dosage of medication<br>2. the mode of medication delivery<br>3. the frequency with which patient status is to be reviewed by a medical physician |
| The frequency of medical review will vary according to patient status. For example a patient with significant agitation may require 4 hourly medical reviews, and a patient with less significant agitation may require 8 hourly medical review. |
| Titrated antipsychotics need to be closely monitored by nursing and medical staff. The dosage and frequency should be titrated carefully against the level of agitation at each review. |
| Titration must commence from a low dose typically commencing with the equivalence of 0.25 - 0.5mg of haloperidol, and if extrapyramidal features are evident, consider olanzapine 2.5mg orally or risperidone 0.25mg orally. |
| It is important that nursing staff caring for patients on antipsychotic medication are able to consult regularly with medical staff. |

Source: page 61, Clinical Practice Guidelines for the Management of Delirium in Older People.

[52] page 61, Clinical Practice Guidelines for the Management of Delirium in Older People. Victorian Government Department of Human Services. Victoria. 2006. www.health.vic.gov.au/acute-agedcare

## 7.4 Continuous Baseline Cognitive Assessment

The key point to understand is the need for continuous assessment using an AMTS or MMSE baseline cognitive assessment. A decline in score by 2 or more points using either of these two measures should trigger a medical review.

It is important that continuous assessment using MMSE or AMTS baseline cognitive assessment occurs in the following settings:

- high risk hospital settings

  it is important to recognise other entry points, including elective and planned surgery and other admission pathways, where screening for delirium should occur.
- community and residential care

  Delirium can occur when a resident or client is at higher risk of developing delirium, such as return from hospital admission, or when they are acutely unwell.
- all settings when

  there is a sudden change in behaviour or cognition an abrupt decline in ADL performance or a sudden deterioration in the person's condition.

# 8. COMMON PATHWAYS FOR AN OLDER PERSON WITH DELIRIUM

The older person with delirium and their carer may journey through the health care system through a number of entry and exit points.

**The Residential Care Line (RCL) in partnership with the Care Coordination Team.**

Patients that have presented via a pathway through the RCL (from residential aged care facilities) will have been assessed through the RCL algorithm for delirium. On medical assessment, completion of investigations and establishment of a delirium management plan in the emergency department and possibly a stay in an Acute Care of the Elderly Unit (short stay unit), the patient may recover better by returning to the familiar environment of the residential aged care facility.

Consideration should be given to a system that allows rapid medical management at usual domicile, such as a mobile GP service.

Expected outcomes of this strategy may be a shorter wait in the ED and preventing an avoidable admission to hospital. Patients returning to a Residential Aged Care Facility are likely to benefit from follow-up based on a protocol for delirium. Follow-up through a GP managing the person's care will include regular screening for cognitive decline and referral to aged care expertise is an important management strategy.

**Short Stay Units for the Elderly – ACE Unit**

A number of beds set aside or in close proximity to the emergency department in aged friendly environment, such as an Acute Care of the Elderly (ACE) Unit with essential care, may be a best option to ensure the older person with or at risk of delirium receives the best care possible – including access to specialist aged care.

**Transfers to private hospitals**

For elderly persons identified for transfer from public hospitals to private hospitals, where delirium or risk of delirium has been identified, there should be mechanisms in place that ensure information on clinical screening, pharmacological management and care planning information is provided to the private hospital. This should facilitate continuity of care for the elderly person with or at risk of delirium.

**Hospitals in WA Country Health Services**

Each regional hospital will need to develop strategies that align with the aim of early screening for delirium (and risk). Education and sensitising staff in the emergency departments, with concurrent development of support strategies into the wards (and into community) are a special challenge in country areas. For example, rather than a dedicated care coordination team in ED, improved access to allied health for at risk groups may be a goal.

## 9. JOURNEY OF AN OLDER PERSON WITH DELIRIUM IN THE HEALTH CARE SYSTEM

The scenario following describes the proposed ideal experience of an older person with delirium as they move through the health care system described in this Model of Care.

Mr Smith has mild Alzheimer's disease and has been non-specifically unwell for a week, before becoming confused, disoriented, hallucinating and falling a few times at home over two days. His general practitioner realises that his wife is unable to cope with his care and sends him to hospital.

The carer and the GP are sources of premorbid cognitive status information.

**ED Care Coordination** → **TO** → **Screening to Further Assessment**

Mr Smith is triaged as having "confusion" and, as an older person, is moved to a quieter area of the Emergency Department. The area is supervised by a care aid or nurse at all times. In accordance with the nurse practice guidelines, the attending nurse administers an AMTS screen for delirium. The results are reported to the attending medical officer.

There is adequate space for Mrs Smith to be with her husband to reassure and orient him. There is easy access to the toilet and the emergency bunks can be raised and lowered for easier transferring and mobility. There are adequate mobility aids, handrails and lighting. The hospital and Emergency Department are clearly identified within the area as well as the time and date.

Mr Smith's glasses and hearing aids are easily available for him to put on and off.

Mobility and self-care are encouraged as far as possible.

This hospital will ensure age friendly environment, removing or decreasing known risk factors for delirium, providing safety, hydration, and oxygenation.

Mr Smith has become dehydrated over the past two days, with resulting acute renal impairment, digoxin toxicity and has faecal impaction and urinary retention. He is rehydrated, medications reviewed and several of them ceased.

He is able to avoid an indwelling urinary catheter because his bladder begins to function after his bowels start working following an enema. Staff members ensure that he has his hearing aids, glasses and teeth and has access to food and water.

In the case that Mr Smith required surgery, intensive care or other specialist care, the responsible medical team and treatment area will attend to "the risk of delirium". Nursing will attend to screening for cognitive change as a standard "vitals" observation.

The history is of a recent change in cognition and delirium seems likely. A geriatrician or old age psychiatrist may use the Confusion Assessment Method (CAM), and confirms a recent, acute change in cognition, with inattention that fluctuates and is associated with disorganised thinking (delusions and hallucinations) and impaired consciousness. His medical evaluation includes his history, physical examination and laboratory tests. His risk factors for delirium are considered as well as cause.

An old age psychiatrist consults, assists in providing a diagnosis of delirium (differentiated from dementia, depression or psychiatric illness) and recommends a management plan. The old age psychiatrist works in partnership with the treating team who adhere to the management plan.

The clinical pathway for delirium is readily available to attending staff and a delirium protocol is commenced. Markers for referral to geriatric care are in place and Mr Smith is subsequently referred for specialist advice from aged care.

The management plan travels with the patient record for the balance of the acute hospital episode.

Mr Smith has developed hyper-active delirium characterised by aggression, mixing past and present, reality and hallucination, and believing he was home “fending off an invasion of strangers into his room”.

He is at risk in a mainstream hospital environment and it is difficult to provide optimal surveillance, stimulation and care. A decision to move him is made carefully and a plan is activated for him to transfer to an aged care specialist unit such as an ACE Unit (Acute Care of the Elderly Unit), a GEM Unit or a specific behavioural unit.

**Inpatient settings** **TO** **Aged Care specialist settings and partnerships**

Mr Smith is moved to an Acute Care of the Elderly Unit (from either the Emergency Department or Inpatient Settings) where he is managed in a safe, secure environment, with views to the outside, clocks and calendars.

His multidisciplinary team continue his management, particularly encouraging mobility and self-care as part of his rehabilitation and recovery from the deconditioning present as a consequence of his acute illness.

Adequate staff are present to ensure that he is managed free of restraints and is supervised to help prevent falls, pressure sores, DVT and malnutrition/dehydration. Care staff may include nurses, care aids, or trained volunteers.

Family are educated about his delirium and encouraged to assist with his care and orientation. One family member is able to sleep overnight if needed to help with reassurance.

Medications are only used to relieve distress and agitation that can’t be managed with behavioural techniques. A pharmacist reviews the medications daily ensuring minimal change to medications (less than three changes in any one 24 hour period), making recommendations to the medical team regarding medications that affect cognitive functioning.

The Unit provides activities aimed at normal wake/sleep cycles. His cognition is monitored on a daily basis as a “vital sign” by an AMTS.

If his delirium were persistent or there were more pressing rehabilitation needs, for example more physiotherapy to improve mobility, then he could be relocated to his local Aged Care Rehabilitation Unit.

Similar principles would be employed in terms of environmental design and patient management. The environment should also cater for relaxation and recreation in a secure setting, for example, gardens and rooms to facilitate diversion therapies. Provision for family to stay overnight if necessary would be made.

When he has made adequate recovery in terms of medical stability, behaviour and mobility, Mr Smith could be considered for early discharge home assuming Mrs Smith is able to provide competent care.

A discharge support program would be tailored to his rehabilitation needs. This may include some physiotherapy, a home discharge visit to look at possible need for aids and equipment and nurse review for continued resolution of his delirium and other issues, for example, bowel and bladder function. Medical follow up could be arranged through his local Aged Care Day Therapy Unit if this was not easily available through his General Practitioner.

A discharge plan includes multidisciplinary input with a dietician due to his poor nutritional state and constipation.

Common variations to the above journey may include:

1. Mr Smith has no evidence of confusion when admitted, but as an older person is admitted to the Acute Care of the Elderly Unit and has appropriate screening for risk factors for delirium and interventions as appropriate to prevent delirium. His cognition is monitored and delirium managed if evident.
2. Mr Smith's General Practitioner recognises that he is not very well and after discussion with a local geriatrician, he is admitted to his local Aged Care Rehabilitation Unit for assessment and management.
3. Mr Smith's mental state continues to fluctuate, and if it is slow to resolve, he is apathetic and not co-operative with rehabilitation, referral to old age psychiatrist for diagnostic review may be indicated.

# APPENDICES

## Appendix 1: Current Service Delivery Model

While there has been some recent progressing of work on delirium at the three major teaching hospitals that includes strong components of education, there are considerable gaps and work to be done in the WA health system in relation to prevention, identification and treatment of delirium.

Current service in relation to delirium in non-geriatric settings is ad hoc and relies on individual medical teams managing the delirium and/or referring for geriatric or old age psychiatrist consultation. There are no established delirium specific protocols or pathways in the emergency departments at the time of writing.

**Metropolitan access to specialist geriatric service:**

Departments of Geriatric Medicine (DGMs) provide support/consultation through direct consult and through specialist clinics across balance/falls, memory and continence. ACATs are located with the DGMs of NMAHS and SMAHS in metro areas and within aged care services in rural and remote regions.

**WA Country Health Service access to specialist geriatric service** is provided through regional aged care services. There is a limited visiting geriatrician service. Tele-health is used to access direct clinical and some education service. ACATs are located within aged care services in rural and remote regions.

**Aged Care and Rehabilitation settings:**

Geriatric Evaluation and Management (GEM) Units, Acute Care of the Elderly (ACE) Units, dedicated Delirium Units (SCGH and Fremantle) and rehabilitation Units are better equipped and have care protocols to better manage patients with delirium. Care is provided mainly by geriatricians and a multidisciplinary team, including Psychiatrists of Old Age, mental health clinicians, physiotherapists, occupational therapists, occupational therapy assistants and care aids or companions. These units are more likely to have age friendly environments.

**Psychiatry and Old Age Psychiatry service:**

All the metropolitan ED's have access to psychiatry review, however access to an old age psychiatrist for subspecialty review if necessary is variable in different services.

## Appendix 2: Identified Gaps in Service Provision in Relation to Delirium Treatment and Management.

Note: *The Aged Care Network Delirium MOC sub-group provided significant input and comments that have been used to inform the following observations.*

- Current management of delirium in WA is inconsistent and sub-optimal and is likely to significantly contribute to hospital length of stay, health resource utilisation and adverse medical and psychosocial outcomes for older people at risk if delirium.
- There is no systematic screening for cognitive impairment, delirium or risk factors for delirium across WA Health and very limited understanding of the syndrome amongst clinical staff. Delirium is generally, under diagnosed, under treated and even mistreated. Detection rates of patients presenting with delirium (prevalent delirium) and delirium arising in hospital (incident delirium) are low.
- There is a low awareness of Delirium as a discrete clinical syndrome, its predisposing and precipitating factors and its consequent significantly increased morbidities and mortality. [53] Both medical and nursing staff often have limited training, skills and understanding of delirium, risk factors for delirium, mental state assessments and differential diagnoses for abnormal behaviour and cognition.
- Carers are not included as partners in care. There is often limited communication with the patient and family/ carers regarding the diagnosis of delirium and its effect. The burden on carers is often not acknowledged.
- Patients are poor historians and unless there is a reliable informant a proper history is not obtained and clinical staff may not consider medical causes for presentation.
- Anecdotal data from older adult mental health services consistently shows that in WA delirium is frequently misdiagnosed as a psychiatric issue, particularly if patient has pre-existing cognitive impairment. This often results in inappropriate pressure to admit to older adult mental health services, instead of medical units where causal factors can be assessed and treated or excluded.
- Patients with hypo-active delirium are often misdiagnosed and mismanaged as behaviour that is not problematic – often misdiagnosed as depression.
- Nursing and medical staff have limited opportunity to liaise with family and may even avoid this to deal with workload and time pressures. This is often exacerbated as family or carers are often not able to stay in hospital throughout assessment process and multiple staff do multiple assessments and may not gather appropriate information regarding history of presentation and usual level of functioning. For patients with pre-existing dementia, altered mental state is therefore often misattributed to dementia and the element of delirium is missed.
- There is limited and inconsistent access to consultation, liaison and advice from geriatricians and psychiatrists of old age. Management of patients with delirium occurs in a range of settings, especially emergency departments and acute medical and surgical wards. Mostly, these are not equipped to properly manage the care of older people with delirium. Care is provided mainly by medical and nursing staff without expertise in the care of older people. Medical and nursing staff often have limited skills and training in managing delirium and the associated problematic behaviours.

[53] An audit at RPH in 2000 revealed that approximately 30% of referrals to psychogeriatricians were related to delirium and of these only 10% were correctly diagnosed by the treating team.

- The hospital environment is often iatrogenic for delirium.

**Absence of essential care**

The current hospital environment and clinical care system is often iatrogenic for delirium as vulnerable patients are subject to long ED waiting times, stressful environment associated with multiple staff, disturbed sleep, and discomfort, dehydration and limited access to food , fluids, mobilisation, junior medical staff assessment and failure to appreciate geriatric syndromes, restricted environment for appropriate care, long waiting times in adverse environment, poor communication, no space for family input.

Long delay in ED therefore tiring, disturbs sleep, pain, stress, unfamiliar environment, overstimulating, unable to easily access food, fluids, pain relief, toilets. Often patients are brought in as emergencies and are without glasses or hearing aids, which limits patients' ability to remain oriented and communicate needs.

**Education**

Improving education of hospital staff about delirium is vital. There is a sparseness and lack of coordinated education across WA health in relation to delirium. Both medical and nursing staff often have limited training, skills and understanding of delirium. Staff are often not aware of risk factors for delirium, mental state assessments and differential diagnoses for abnormal behaviour and cognition.

**Data**

While there is an absence of a reliable data set in relation to delirium in the WA health system, research identifies the potential magnitude of delirium as a syndrome in the elderly cohort admitted to hospitals. [54]

There is significant under reporting of delirium, with as a primary diagnosis or an accompany diagnosis within the data collections systems across WA Health.

[54] page 95, Clinical Practice Guidelines for the Management of Delirium in Older People.

## Appendix 3: Abbreviated AMTS - Two Versions

### ABBREVIATED MENTAL TEST SCORE [55]

| EACH QUESTION SCORES ONE POINT | 1 |
|---|---|
| **1.** Age – 'How old are you?' | |
| **2.** Time to nearest hour. | |
| **3.** An address – for example 42 West Street – to be repeated by the patient at the end of the test. | |
| **4.** Year – 'What year is it?' | |
| **5.** Name of hospital, residential institution or home address, depending on where the patient is situated. | |
| **6.** Recognition of two persons – for example, doctor, nurse, home help, relative etc. | |
| **7.** Date of birth? | |
| **8.** Year First World War started (1914) | |
| **9.** Name of present Queen, Prime Minister, Premier? | |
| **10.** Count backwards from 20 to 1 (no errors, no cues) | |

**A SCORE OF LESS THAN 8 SUGGESTS ABNORMAL COGNITION**
**This may be DELIRIUM (default diagnosis) or DEMENTIA**

55 Hodgkinson HM. Evaluation of a mental test score for assessment impairment in the elderly. Age Ageing 1972;1:233-8

Australian Government
Department of Veterans' Affairs

**Abbreviated Mental Test Score**

*Disclaimer: This tool is only a guide and **does not** replace clinical judgement.*

U.R. No. LMO
SURNAME
GIVEN NAMES ADDRESS
PHONE
SEX AGE D.O.B.
(Or attach Client I.D. Label)

**Veteran's File Number (VFN) & Card Type**

***Scoring*** *Each correctly answered question scores 1 point.*

***Interpretation*** *Scores less that 7 indicates likely cognitive impairment although some authors would argue that a score less than 8 may be a better discriminator.*

***Application*** *(Re Q 6) If 2 people are not available then picture cards illustrating commonly identifiable individuals such as police officer and nurse in uniform or a member of the clergy or sportsperson or other commonly recognisable position may be used.*

| Instrument | | |
|---|---|---|
| 1. Age | 0 | 1 |
| 2. Time (to nearest hour) | 0 | 1 |
| 3. Address (for recall at end of test) Say to veteran: I am going to say an address. Say: 42 West St. can you say that address please? I am going to ask you to repeat it for me in a few minutes. | 0 | 1 |
| 4. Year | 0 | 1 |
| 5. Name your home address | 0 | 1 |
| 6. Recognition of two persons | 0 | 1 |
| 7. Date of birth | 0 | 1 |
| 8. Year of First World War | 0 | 1 |
| 9. Name of present Prime Minister | 0 | 1 |
| 10. Count backwards 20-1 | 0 | 1 |

**TOTAL SCORE** _____

**Action taken**

**Signature of Nurse**_____ **Date** ***/ /***

Source: Commonwealth Dept. Health & Human Services (1996) Dementia Kit. Canberra AGPS

# RUDAS

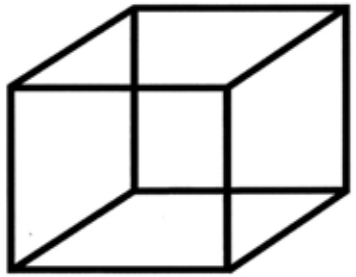
**The Rowland Universal Dementia Assessment Scale (RUDAS):**
**A Multicultural Cognitive Assessment Scale**

Storey, Rowland, Basic, Conforti & Dickson (2004). *International Psychogeriatrics*, 16 (1), 13-31

Date: _____ Patient Name: _____

| Item | | Max Score |
|---|---|---|
| ***Memory*** | | |
| 1. *(Instructions)* I want you to imagine that we are going shopping. Here is a list of grocery items. I would like you to remember the following items which we need to get from the shop. When we get to the shop in about 5 mins time, I will ask you what it is that we have to buy. You must remember the list for me. **Tea, Cooking Oil, Eggs, Soap.** Please repeat this list for me *(Ask person to repeat the list 3 times). (If person did not repeat all four words, repeat the list until the person has learned them and can repeat them, or, up to a maximum of five times.)* | | |
| ***Visuospatial Orientation*** | | |
| 2. I am going to ask you to identify/show me different parts of the body. *(Correct = 1). Once the person correctly answers 5 parts of this question, do not continue, as the maximum score is 5.* | | |
| (1) Show me your right foot | .....1 | |
| (2) Show me your left hand | .....1 | |
| (3) With your right hand touch your left shoulder | .....1 | |
| (4) With your left hand touch your right ear | .....1 | |
| (5) Which is (indicate/point to) my left knee | .....1 | |
| (6) Which is (indicate/point to) my right elbow | .....1 | |
| (7) With your right hand indicate/point to my left eye | .....1 | |
| (8) With your left hand indicate/point to my left foot | .....1 | |
| | | ...../5 |
| ***Praxis*** | | |
| 3. I am going to show you an action/exercise with my hands. I want you to watch me and copy what I do. Copy me when I do this... *(One hand in fist, the other palm down on table - alternate simultaneously.)* Now do it with me: Now I would like you to keep doing this action at this pace until I tell you to stop - approximately 10 seconds. *(Demonstrate at moderate walking pace).* | | |
| **Score as:** | | |
| Normal = 2 (very few if any errors; self-corrected, progressively better; good maintenance; only very slight lack of synchrony between hands) | | |
| Partially Adequate = 1 (noticeable errors with some attempt to self-correct; some attempt at maintenance; poor synchrony) | | |
| Failed = 0 (cannot do the task; no maintenance; no attempt whatsoever) | | ...../2 |
| ***Visuoconstructional Drawing*** | | |
| 4. Please copy/draw this picture exactly as it looks to you. (Show cube on back page) *(Yes = 1).* | | |
| **Score as:** | | |
| (1) Has person drawn a picture based on a square? | .....1 | |
| (2) Do all internal lines appear in person's drawing? | .....1 | |
| (3) Do all external lines appear in person's drawing? | .....1 | |
| | | ...../3 |
| ***Judgement*** | | |
| 5. You are standing on the side of a busy street. There is no pedestrian crossing and no traffic lights. Tell me what you would do to get across to the other side of the road **safely.** *(If person gives incomplete response that does not address both parts of answer, use prompt: "Is there anything else you would do?") Record exactly what patient says and circle all parts of response that were prompted.* | | |
| ..... | | |
| ..... | | |
| **Score as:** | | |
| Did person indicate that they would look for traffic? (YES = 2;YES PROMPTED = 1; NO = 0) | .....2 | |
| Did person make any additional safety proposals? (YES = 2;YES PROMPTED = 1; NO = 0) | .....2 | |
| | | ...../4 |

| | | |
|---|---|---|
| ***Memory Recall*** | | |
| 1. *(Recall)* We have just arrived at the shop. Can you remember the list of groceries we need to buy? *(Prompt: If person cannot recall any of the list, say "The first one was 'tea'." (Score 2 points each for any item recalled which was not prompted use only 'tea' as a prompt.)* | | |
| Tea | .....2 | |
| Cooking Oil | .....2 | |
| Eggs | .....2 | |
| Soap | .....2 | |
| | | ...../8 |
| ***Language*** | | |
| 6. I am going to time you for one minute. In that one minute, I would like you to tell me the names of as many different animals as you can. We'll see how many different animals you can name in one minute. *(Repeat instructions if necessary). Maximum score for this item is 8. If person names 8 new animals in less than one minute there is no need to continue.* | | |
| 1. ..... 5. ..... | | |
| 2. ..... 6. ..... | | |
| 3. ..... 7. ..... | | |
| 4. ..... 8. ..... | | |
| **TOTAL SCORE** | | **/30** |



## Appendix 5: Confusion Assessment Method (CAM) Diagnostic Algorithm [56]

**Feature 1: Acute Onset and Fluctuating Course** ***Tick ☑ if present***

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 patient's baseline?"
- "Did the (abnormal) behaviour fluctuate during the day, that is, tend to come and go, or increase and decrease in severity?"

***Feature 2: Inattention*** ***Tick ☑ if present***

This feature is shown by a positive response to the following question:

- "Did the patient have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said?"

***Feature 3: Disorganised thinking*** ***Tick ☑ if present***

This feature is shown by a positive response to the following:

- "Was the patient's thinking disorganised or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?"

***Feature 4: Altered Level of Consciousness*** ***Tick ☑ if present***

This feature is shown by any answer other than "alert" to the following question:

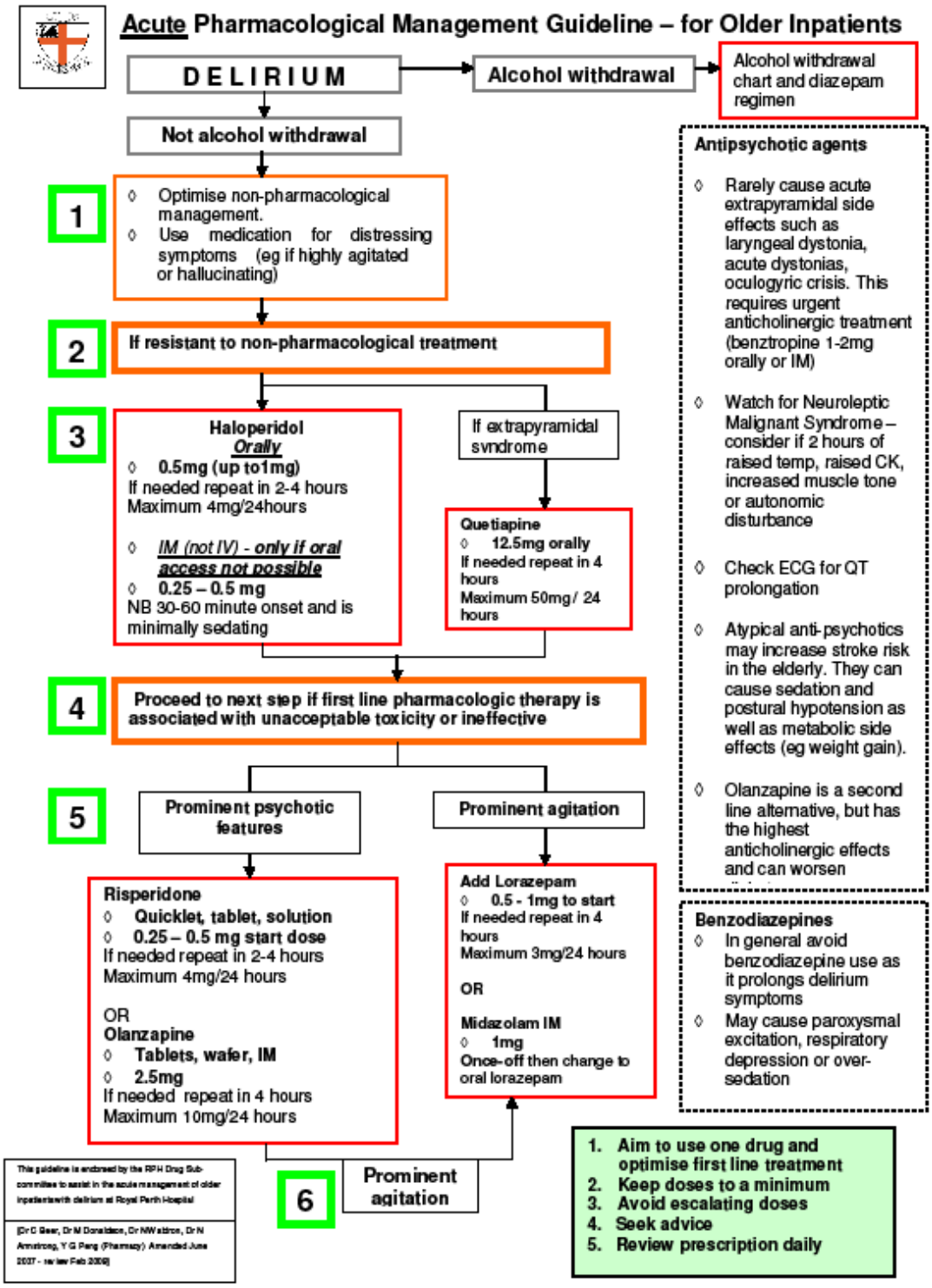
- "Overall, how would you rate this patient's level of consciousness?"

alert [normal], vigilant [hyperalert]), lethargic [drowsy, easily aroused], stupor [difficult to arouse], or coma [unrousable].

**<u>The diagnosis of delirium by CAM requires the presence of features 1 and 2 plus either 3 or 4</u>**

[56] Source: Inouye SK, Van Dyck CH, Alessi CA, Balkin S, Siegal AP, Horwitz RI. Clarifying cosion: The Confusion Assessment Method. A new method for detection of delirium. Ann Intern Med. 1990; 113: 941-8.

## Appendix 6: Example of Pharmacological Management Protocol for Acute Delirium



## Appendix 7: Other Models and Programs

### 1. The Hospital Elder Life Program (HELP)

"A Model of Care to Prevent Delirium and Functional Decline in Hospitalized Older Patients" - Sharon K. Inouye, M.D., M.P.H., Professor of Medicine

Yale University School of Medicine

http://elderlife.med.yale.edu/public/public-main.php

**Primary goals:**

- Maintaining physical and cognitive functioning throughout hospitalization
- Maximizing independence at discharge
- Assisting with the transition from hospital to home
- Preventing unplanned readmission

**Unique Features:**

- Hospital-wide focus; geriatric unit is not required
- Provision of skilled staff and trained volunteers to carry out interventions
- Use of practical interventions directed at 6 known risk factors for cognitive and functional decline
- Targeting of program towards appropriate patients
- Standard quality assurance procedures

**Other HELP Interventions [Linkages]:**

- Geriatric nursing assessment and intervention
- Interdisciplinary rounds
- Geriatrician consultation
- Interdisciplinary consultation
- Provider education program
- Community linkages and telephone follow-up

**Inouye SK, et al. J Am Geriatric Soc. 2000; 48:1697-1706**

### 2. Recruitment of Volunteers to Improve Vitality in the Elderly (ReViVe)

**http://www.archi.net.au/e-library/build/moc/delirium**

**http://www.archi.net.au/__data/assets/pdf_file/0005/47957/ReViVe_moc.pdf**

Delirium and functional decline are not inevitable consequences of hospitalisation for older people as they are recognisable and preventable. The Delirium Prevention Model of Care features the Recruitment of Volunteers to Improve Vitality in the Elderly (ReViVe) program at the Prince of Wales Hospital.

This program provides an opportunity to enhance the older person's journey. A pool of volunteers helps the ward staff to provide additional care to older patients. The interventions include volunteers providing patients with orientation information as to the 'here and now', practical assistance with mobility, meals and hydration, glasses and hearing aids and activities to maintain alertness and decrease boredom during hospitalisation.

**http://www.hospitalelderlifeprogram.org/public/prevention.php**

## 3. Geriatric Rapid Acute Care Evaluation (GRACE)

http://www.archi.net.au/e-library/build/moc/grace

Under the *Rapid Evaluation and Acute Care for Aged Care Residents Model of Care* (hereafter referred to as GRACE), hospital staff work in collaboration with general practitioners and aged care facilities to improve the journey of aged care facility residents. Enhanced hospital resources support general practitioners and aged care facility staff to care for residents at home, avoiding hospital admissions.

## 4. Residential Care Line (RCL) – Western Australia

http://odgp.com.au/Newsletters/2004%20newsletters%20PDFs/August04.pdf

The Residential Care Line (RCL) is a 24 hour telephone advisory service for staff in nursing homes and hostels in metropolitan Perth. It has been set up to provide Residential Aged Care Facilities (RACF) with support, advice and access to additional services.

The RCL has significant potential to support the role of the GP as the medical manager of residents. The RCL was developed in consultation with GPs with the recognition that there is potential for improved medical management if residential patients can remain in the facility. Discussions highlighted the lack of support available to staff in nursing homes and the decrease in quality of life for residents of care facilities through transfer back and forth between care centres and hospitals.

## ACRONYMS

| | |
|---|---|
| **ACHS** | Australian Council on Health Care Standards |
| **ACE** | Acute Care of the Elderly Unit |
| **AHMAC** | Australian Health Ministers Advisory Council<br>http://www.ahmac.gov.au/site/home.aspx |
| **AMTS** | Abbreviated Mental Test Score |
| **ASGM** | Australian and New Zealand Society for Geriatric Medicine<br>http://www.asgm.org.au/posstate.asp |
| **ATSI** | Aboriginal or Torres Strait Islander |
| **CACP** | Community Aged Care Package<br>http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ageing-commcare-cacp.htm |
| **CALD** | Culturally and Linguistically Diverse |
| **CAM** | Confusion Assessment Method |
| **CAP** | Care Awaiting Placement<br>http://www.agedcare.health.wa.gov.au/transitioncare/cap.cfm |
| **CCT** | Care Coordination Team |
| **COAG** | Council of Australian Governments<br>http://www.coag.gov.au/ |
| **DGM** | Department of Geriatric Medicine |
| **EACH** | Extended Aged Care at Home<br>http://www.health.gov.au/internet/wcms/publishing.nsf/Content/ageing-commcare-comcprov-eachdex.htm |
| **ED** | Emergency Department |
| **GEM** | Geriatric Evaluation and Management |
| **GP** | General Practitioner |
| **GRACE** | Geriatric Rapid Acute Care Evaluation<br>http://www.archi.net.au/e-library/build/moc/grace |
| **HACC** | Home and Community Care<br>http://www.health.wa.gov.au/hacc/home/ |
| **HATH** | Hospital At The Home |
| **HELP** | Hospital Elder Life Program<br>http://www.hospitalelderlifeprogram.org/public/public-main.php?pageid=01.00.00 |
| **HITH** | Hospital In The Home |

| | |
|---|---|
| **KICA** | Kimberley Indigenous Cognitive Assessment<br>http://www.healthykimberley.com.au/chronic/KICA.2006.pdf |
| **MMSE** | Mini Mental State Examination Folstein et al., 1975 |
| **NAP** | National Action Plan<br>http://www.health.gov.au/internet/wcms/publishing.nsf/Content/hcoasc-national-action-plan.htm |
| **NEECHAM** | see Neecham Confusion Scale<br>http://www.rnao.org/bestpractices/PDF/BPG_DDD.pdf at page66 |
| **NMAHS** | North Metropolitan Area Health Services<br>http://www.nmahs.health.wa.gov.au/ |
| **RACF** | Residential Aged Care Facility |
| **RCL** | Residential Care Line |
| **ReVIVE** | Recruitment of Volunteers to Improve Vitality in the Elderly<br>http://www.archi.net.au/__data/assets/pdf_file/0005/47957/ReViVe_moc.pdf |
| **RITH** | Rehabilitation In The Home |
| **RPH** | Royal Perth Hospital |
| **RUDAS** | ROWLAND UNIVERSAL DEMENTAI ASSESSMENT SCALE |
| **SCGH** | Sir Charles Gairdner Hospital |
| **SMAHS** | South Metropolitan Area Health Services<br>http://southmetropolitan.health.wa.gov.au/about/default.aspx |
| **TCS** | Transition Care Service (Transition Care Program)<br>http://www.agedcare.health.wa.gov.au/transitioncare/index.cfm |
| **WACHS** | Western Australian Country Health Services<br>http://www.wacountry.health.wa.gov.au |

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  www.health.vic.gov.au/acute-agedcare/age-friendly-principles-and-practices.pdf
- From hospital to home, Improving care outcomes for older people - A National Action Plan for improving the care of older people across the acute-aged care continuum, 2004-2008

  Developed on behalf of the Australian Health Ministers' Advisory Council (AHMAC) by the AHMAC Care of Older Australians Working Group, July 2004

  www.health.vic.gov.au/acute-agedcare/national-action-plan.pdf

- Policy documents:
  - Aged Care Policy Directorate – Home page: www.agedcare.health.wa.gov.au/home/
  - *A Healthy Future for Western Australians*: Report of the Health Reform Committee, Department of Health, March 2004 http://www.health.wa.gov.au/HRIT/publications/docs/Final_Report.pdf
  - WA Health Clinical Services Framework 2005-2015 September 2005 www.health.wa.gov.au/HRIT/csf/docs/clinicalframework.pdf
  - WA Clinical Network for Aged Care www.healthnetworks.health.wa.gov.au/agedcare/index.cfm
  - Aged Care Network *Model of Care for Older Persons in WA* Department of Health WA 2007 www.healthnetworks.health.wa.gov.au/agedcare/docs/Model_of_Care_Policy.pdf
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  - Foundations for Country Health Services: The WA Country Health Service Strategic Plan 2007-2010 WA Country Health Service Department of Health Government of Western Australia, Perth 2006 www.wacountry.health.wa.gov.au/default.asp?documentid=510
  - Cultural Respect Framework www.aboriginal.health.wa.gov.au/healthinfo/docs/Cultural_Respect_Framework.pdf
  - AHMAC: Cultural Respect Framework for Aboriginal and Torres Strait Islander Health 2004 – 2009 www.health.sa.gov.au/DesktopModules/SSSA_Documents/LinkClick.aspx?tabid=58&mid=409&table=SSSA_Documents&field=ItemID&id=89&link=H%3A%5CUploads%5CCultural+Respect+Framework.pdf.
  - *Communicating with Carers and Families: Information sharing for better outcomes*. Office of the Chief Psychiatrist, Department of Health 2007 www.carerswa.asn.au/uploadedfiles/Communicating%20with%20Carers%20and%20Families%20May%202007.pdf
  - *Unnecessary and avoidable admissions for older people*: A report to the Department of Health and Ageing, Siggins Miller, September 2003 www.health.gov.au/internet/wcms/publishing.nsf/Content/665F2ED12A7D4331CA2572B3000C4483/$File/Avoidable%20Admissions%20Report%20Final.pdf

- Department of Health Projects:
  - Royal Perth Hospital, South Metropolitan Area Health Services, Delirium Project 2007
  - Sir Charles Gairdner Hospital North Metropolitan Area Health Services, Delirium Project 2007/08
  - Fremantle Hospital, South Metropolitan Area Health Services, Delirium Project 2008

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