



Dementia
Training
Australia

How to best care for older people with cognitive impairment in ED

Dr Linda Schnitker

Dementia Training Australia is supported by funding from the Australian Government under the Dementia and Aged Care Services Fund



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Overview Content Presentation

People with cognitive impairment in EDs:

1. Background
2. Quality Indicators
3. Care Challenges
4. Best Practices
5. Conclusion



1. Background



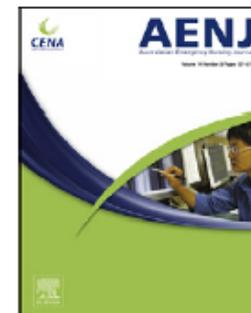


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LITERATURE REVIEW

Negative health outcomes and adverse events in older people attending emergency departments: A systematic review

Linda Schnitker^{a,*}, Melinda Martin-Khan^a, Elizabeth Beattie^b, Len Gray^a

^a *The Centre for Research in Geriatric Medicine, School of Medicine, The University of Queensland, Woolloongabba, Queensland, Australia*

^b *School of Nursing and Midwifery, Queensland University of Technology, Kelvin Grove, Queensland, Australia*



¹ Schnitker et al. 2011

How to best care for older people with cognitive impairment in ED

1/5 Background

Functional Decline:

- Increased risk compared to younger ED patients¹
- The oldest are at highest risk²

FUNCTIONAL DECLINE ED PATIENTS ≥ 65 YEARS

Time since ED visit:	<u>3 weeks</u>	<u>3 months</u>	<u>6 months</u>
Results:	10% – 52% ³	6% (ADL) & 20% (IADL) ⁴	16% ⁵



¹ Denman et al. 1989

² Bloch et al. 2009, Grossman et al. 2003

³ Currie et al. 1984, Rowland et al. 1990, Sayers et al. 1997.

⁴ Shapiro et al. 2001

⁵ McCusker et al. 1999.

1/5 Background

ED Readmission:

- No significant differences between 65+ and 75+ group

ED- READMISSION PATIENTS 65+ AND 75+				
Time since ED visit:	<u>14 days</u>	<u>1 month</u>	<u>3 months</u>	<u>6 months</u>
Results 75+:	5.6% ¹	12% - 17.1% ²	6% - 24% ⁴	
Results 65+:		10.3% - 19.3% ³	17.2% - 26% ⁵	42.9% ⁶

¹ Rowland et al. 1990

² Bentley et al. 2004, Caplan et al. 1998

³ Friedmann et al. 2001, Hastings et al. 2008, McCusker et al. 2000, 2009, Ferrera et al. 1999.

⁴ Richardson, 1992, McCusker et al. 1997

⁵ Friedmann et al. 2001, Hastings et al. 2007, 2008.

⁶ McCusker et al. 2000



1/5 Background

Hospitalisation:

HOSPITALISATION RATE ED PATIENTS ≥ 65 YEARS DISCHARGED HOME

Time since ED visit:	<u>7 – 14 days</u>	<u>1 month</u>	<u>3 months</u>	<u>6 months</u>
Results:	3% - 10.2% ¹	10.9% - 14% ²	13.3 – 18.3% ³	17.6% ⁴



¹ McCusker et al. 2000, Sayers, 1997.

² Hastings et al. 2008, McCusker et al. 2000.

³ Hastings et al 2008 & 2007.

⁴ McCusker et al. 2000

1/5 Background

Institutionalisation:

INSTITUTIONALISATION RATE OLDER ED PATIENTS

Time since ED visit:	<u>1 month</u>	<u>3 months</u>	<u>6 months</u>
Results 75+:		7.5% ¹	13% ¹
Results 65+:	1.4% ²	2.6% ²	3% ³



¹ Bloch et al. 2009, Richardson, 1992.

² Hastings et al. 2008, McCusker et al. 2000.

³ Carpenter et al. 2009, McCusker et al. 1999.

1/5 Background

Mortality:

MORTALITY RATE OLDER ED PATIENTS

Time since ED visit:	<u>1 month</u>	<u>3 months</u>	<u>6 months</u>
Results 75+:		12.4% ¹	1% -14.8% ²
Results 65+:	1% - 2.2% ³	2.4% - 10% ⁴	10.2% ⁵

¹ Bloch et al. 2009, Richardson, 1992.

² Bloch et al. 2009, Bently et al. 2004. Richardson, 1992.

³ McCusker et al. 2009, Hastings et al. 2008, Friedmann et al. 2001.

⁴ Hastings et al. 2008 & 2007, Friedmann et al. 2001, Chin et al. 1999

⁵ McCusker et al. 1999



1/5 Background

Adverse Events¹:

1. Adverse medication-related events
2. Under triage of illness severity
3. Adverse communication-related events
4. Lack of recognition of geriatric syndromes



Princess Alexandra Hospital, Brisbane



¹ Schnitker et al. 2010

1/5 Background

Adverse medication-related events:

- No routine screening¹
- Discordance medication lists²

SUB-OPTIMAL PHARMACOTHERAPY³ OLDER ED PATIENTS (≥ 65 Y)

In ED	3.6% - 19.9% ³
Upon discharge	5.6% - 31.8% ⁴



¹ Beers et al 1990.

² Nixdorff et al 2008.

³ Chen et al. 2009, Carter et al. 2008, Nixdorff et al. 2008, Caterino et al. 2004, Heinger-Rothbucher et al. 2003, Chin et al. 1999

⁴ McCusker et al. 2009, Hastings et al. 2007, Hustey et al. 2007, Chin et al. 1999.

1/5 Background

Under triage of illness severity:

- 'Age' independent factor influencing the process of care¹

UNDER TRIAGE OF ILLNESS SEVERITY IN OLDER ED PATIENTS (≥65 Y)

Missed diagnosis / unrecognised health issues

20% - 28%²



¹ Montout et al. 2008, Magid et al. 2005, Lane et al. 2003, Grant et al. 2000.

² Ray et al. 2006, Khan et al. 1996

1/5 Background

Adverse communication-related events:

- Missing essential patient information¹
- Emergency physicians experience communication problems²



¹ Schumacher et al. 2006, Stiell 2003

² McNamara et al. 1992

1/5 Background

Lack of recognition of geriatric syndromes:

- Cognitive Impairment:
 - No routine screening
 - Poor documentation¹

RECOGNITION OF CI IN OLDER ED PATIENTS ≥ 65.

	<u>Not detected:</u>	<u>Not documented:</u>
Delirium:	43.3% - 76% ²	40% - 83% ³
Cognitive functioning		88% ⁴

¹ Hustey, 2002.

² Han et al. 2009, Hustey et al. 2003, Kakuma et al. 2003, Elie et al. 2000.

³ Elie et al. 2009, Lewis et al. 1995.

⁴ Press et al. 2009



1/5 Background

The Identification of Seniors at Risk (ISAR) tool: (ISAR)¹:

		Hospital use only
1. Before the illness or injury that brought you to the Emergency, did you need someone to help you on a regular basis?	<input type="checkbox"/> YES <input type="checkbox"/> NO	1 0
2. Since the illness or injury that brought you to the Emergency, have you needed more help than usual to take care of yourself?	<input type="checkbox"/> YES <input type="checkbox"/> NO	1 0
3. Have you been hospitalized for one or more nights during the past 6 months (excluding a stay in the Emergency Department)?	<input type="checkbox"/> YES <input type="checkbox"/> NO	1 0
4. In general, do you see well?	<input type="checkbox"/> YES <input type="checkbox"/> NO	0 1
5. In general, do you have serious problems with your memory?	<input type="checkbox"/> YES <input type="checkbox"/> NO	0 1
7. Do you take more than three different medications every day?	<input type="checkbox"/> YES <input type="checkbox"/> NO	1 0
TOTAL: _____		

The Triage Risk Screening Tool (TRST)²:

- History or evidence of cognitive impairment (poor recall or not oriented)
- Difficulty walking/transferring or recent falls
- Five or more medications
- ED use in previous 30 days or hospitalization in previous 90 days
- RN professional recommendation*

¹ McCusker et al. 1999

² Meldon et al. 2003



1/5 Background

People with dementia compared to older adults ^{1,2}

- More frequent ED visits
- More frequently admitted
- Increased re-presentations
- Increased mortality rate



- LaMantai MA, Stump TE, Messina FC, Miller DK, Callahan CM. Emergency Department Use Among Older Adults with Dementia. *Alzheimer Dis Assoc Disord*, 2016.
- Australian Commission on Safety and Quality in Health Care. Evidence for the safety and quality issues associated with the care of patients with cognitive impairment in acute care, 2013.

2. Quality Indicators



2/5 Quality Indicators

Measuring Quality of Care of Older ED Patients with Cognitive Impairment: 'the EDQI cognition Project'



2/5 Quality Indicators

Research Question

- What data reflects quality of care of older ED patients with cognitive impairment?



2/5 Quality Indicators

Methodology EDQI project – 3 phases



2/5 Quality indicators

Results Phase 2

- Process and outcome data of 544 older ED patients
- Structural data of 8 Australian ED sites

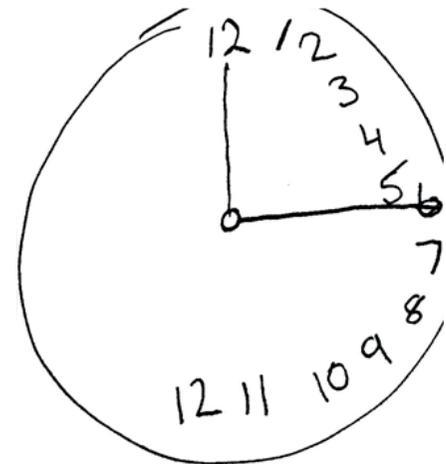
ED Population Characteristics (N=544):	
Mean age	80.5 (SD 6.7) (Range, 70 – 99)
Female	277 (51%)
Service urgency according to a five-level triage instrument	Level 1: n=0 (0%)
	Level 2: n=92 (17%)
	Level 3: n=318 (58%)
	Level 4: n=124 (23%)
	Level 5: n=10 (2%)
Subsequent hospital admission:	314 (58%)



2/5 Quality indicators

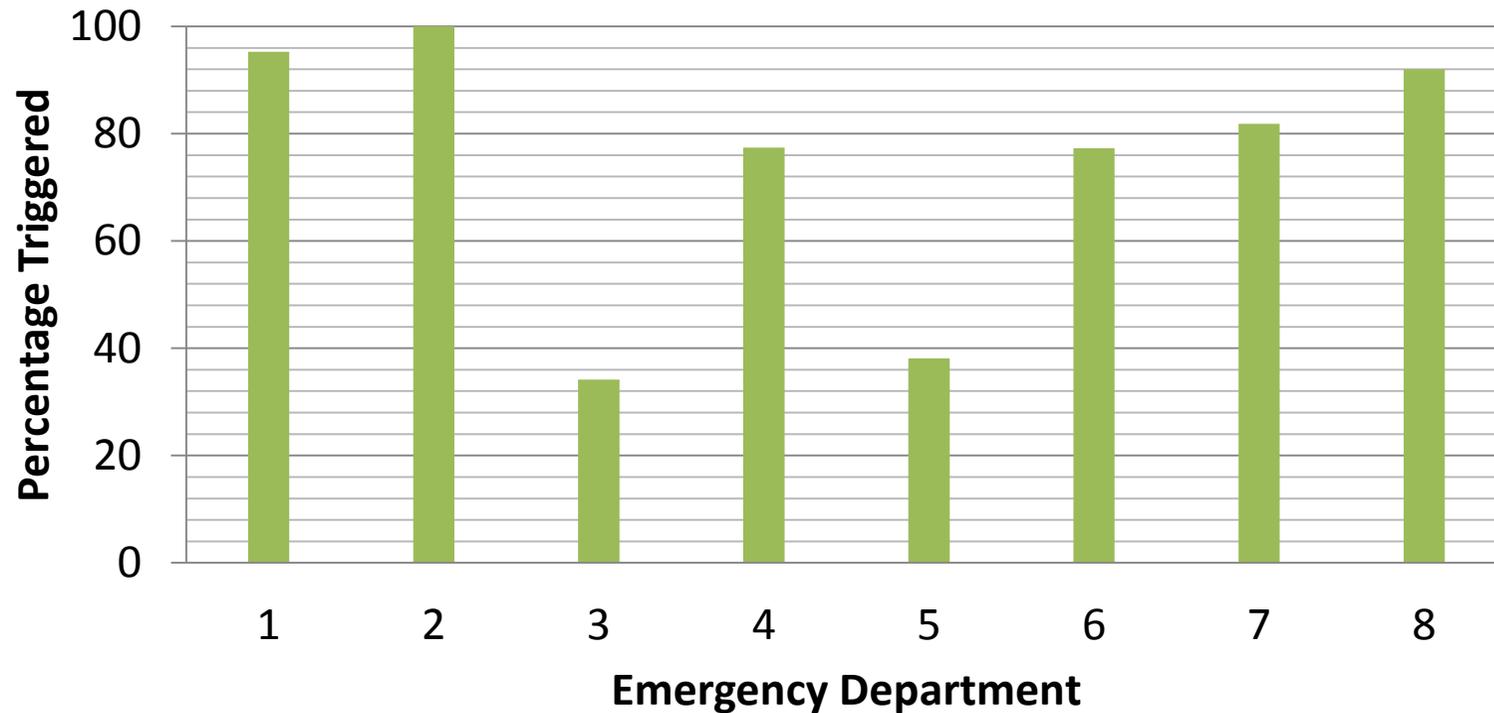
1) Process Quality Indicator: Cognitive screening

Proportion of older people who received cognitive screening in ED



2/5 Quality Indicators

- *Proportion of older people who received cognitive screening in ED*



2/5 Quality Indicators

Assessment of cognitive functioning

Clinically significant:

Delirium:

- Delirium is a preventable clinical syndrome¹
- Benefit from rapid diagnosis and treatment²

Existing cognitive impairment:

- Benefit from early recognition³
- Referrals to interdisciplinary teams to slow disease progression and support prolonged independence³



¹ Inouye 2000.

² Sanders 2002.

³ Fillet et al. 2006, Geldmacher et al. 1996.

2/5 Quality Indicators

Assessment of cognitive status:

- If CI is not recognised clinical decisions may be based on incorrect or incomplete data
- Compliance discharge instructions
- Achieving optimal care¹ and reducing risk of negative outcomes and adverse events.



¹ Fillit et al. 2006

2/5 Quality Indicators

Older ED patients:

- Cognitive impairment prevalence: 26%-40%¹
- Delirium prevalence: \approx 10%²



<http://www.medicarehomehealth.com/education-center/resources-for-seniors/aarp-8-treatable-conditions-mimic-dementia/>



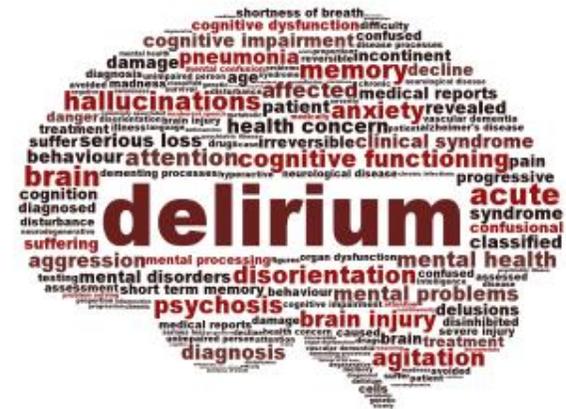
¹ Wilber et al. 2008 & 2005, Hustey et al. 2003 & 2002, Naughton et al. 1995, Gerson et al. 1994

² Schnitker 2015 et al., Han et al. 2009, Hare et al. 2008, Hastings et al. 2007, Hustey et al. 2002, McCusker et al. 1999

2/5 Quality indicators

2) Process Quality Indicator: Delirium screening

Proportion of older people who received a screen for delirium in ED

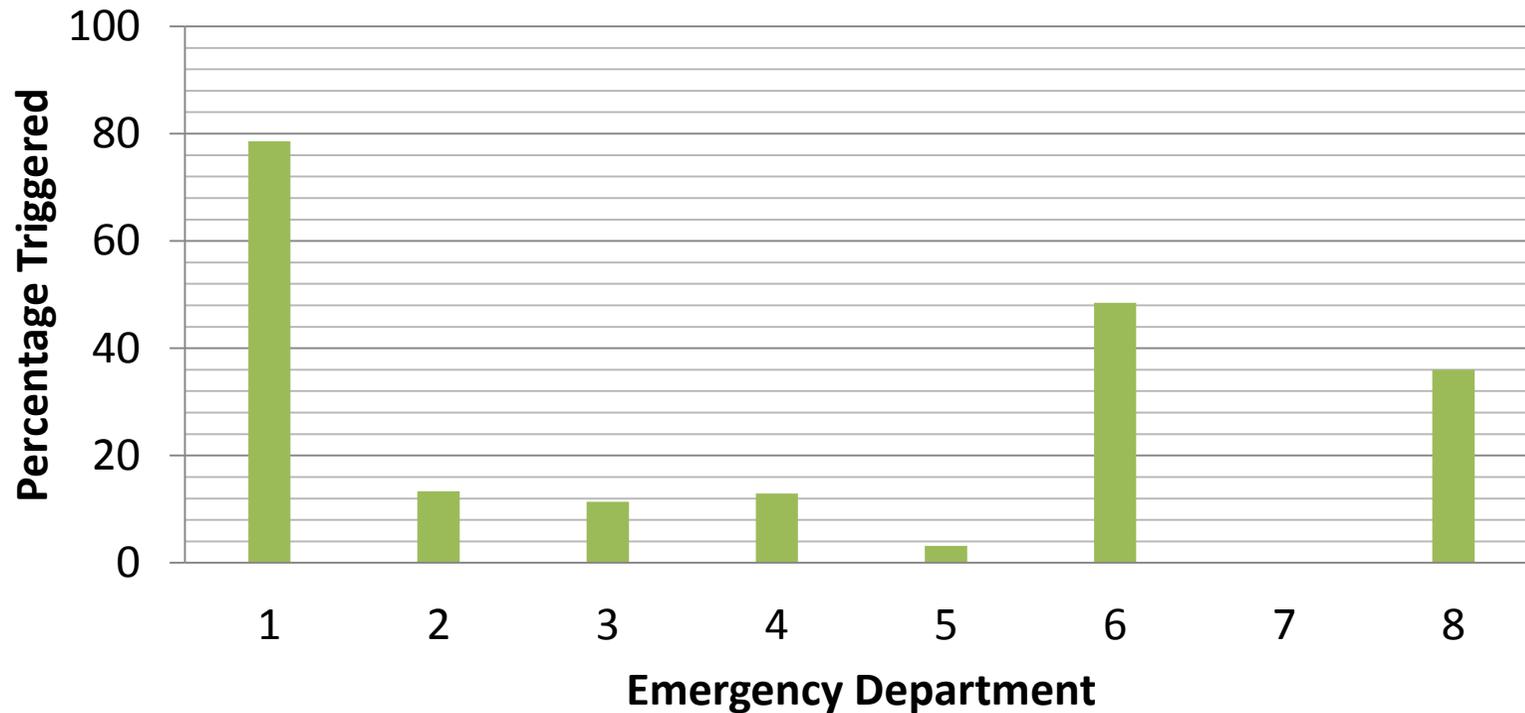


<https://ccnb.com.au/can-protect-ageing-parent-delirium/>



2/5 Quality Indicators

- *Proportion of older people who received a screen for delirium in ED*



2/5 Quality Indicators

Structural Quality Indicators:



The Pain Assessment in Advanced Dementia (PAINAD) Scale

Observed	0	1	2	Score
Breathing independent of vocalisation	Normal	Occasional laboured breathing. Short period of hyperventilation.	Noisy laboured breathing. Long periods of hyperventilation. Cheyne-Stokes respiration.	
Responsive vocalisation	None	Occasional moan or groan. Low-level speech with a negative or disapproving quality.	Repeat troubled calling out. Loud moaning or groaning. Crying.	
Facial expressions	Smiling or inexpressive	Sad, frightened or frown.	Facial grimacing.	
Body language	Relaxed	Tense, distressed pacing and fidgeting.	Rigid, fists clenched, knees pulled up, pulling or pushing away, striking out.	
Consoleability	No need to console	Distracted or reassured by voice or touch.	Unable to console, distract or reassure.	
				Total

Waller, S. & Clark, M. (2005). Development and psychometric evaluation of the pain assessment in advanced dementia (PAINAD) scale. J Am Med Assoc. 293(15): 1833-1837.



Picture 1: Assessment of the ED environment searching for elderly friendly structural elements



Structural Quality Indicators

Domain	Quality Indicator: The ED has a policy outlining.....	Triggered
Cognitive Impairment	<i>The management of older people with cognitive impairment during the ED episode of care</i>	25% (2/8)
Carer friendly environment	<i>Issues relevant to carers of older people with cognitive impairment, encompassing the need to include the (family) carer in the ED episode of care</i>	12.5% (1/8)
Assessment and management of behavioural disturbances	<i>The assessment and management of behavioural symptoms, with specific reference to older people with cognitive impairment</i>	37.5% (3/8)
Delirium prevention	<i>Delirium prevention strategies, including the assessment of delirium risk factors</i>	43% (3/7)
Pain assessment and management	<i>Pain assessment and management for older people with cognitive impairment</i>	43% (3/7)



2/5 Quality Indicators

ORIGINAL CONTRIBUTION

Process Quality Indicators Targeting Cognitive Impairment to Support Quality of Care for Older People with Cognitive Impairment in Emergency Departments

Linda M. Schnitker, MS, Melinda Martin-Khan, PhD, Ellen Burkett, MBBS, Elizabeth R. A. Beattie, PhD, Richard N. Jones, ScD, and Len C. Gray, PhD, The Research Collaboration for Quality Care of Older Persons: Emergency Care Panel*

ORIGINAL CONTRIBUTION

Structural Quality Indicators to Support Quality of Care for Older People With Cognitive Impairment in Emergency Departments

Linda M. Schnitker, MS, Melinda Martin-Khan, PhD, Ellen Burkett, MBBS, Caroline A. Brand, PhD, Elizabeth R. A. Beattie, PhD, Richard N. Jones, ScD, and Len C. Gray, PhD, The Research Collaboration for Quality Care of Older Persons: Emergency Care Panel*

<https://onlinelibrary-wiley-com.ezp01.library.qut.edu.au/doi/epdf/10.1111/acem.12617>

<https://onlinelibrary-wiley-com.ezp01.library.qut.edu.au/doi/abs/10.1111/acem.12616>



3. Other Care Challenges



2/5 Quality Indicators

Rationale

- Increasing older ED population with cognitive impairment¹
 - Complex care needs
 - ED can be stressful and frightening²
 - Responsive behaviour³
 - Burden of care
 - Carer stress
 - Safety / Ethical issues
 - Increased risk delirium⁴
 - Increased risk delayed pain assessment and treatment⁵

¹ Ferri et al. 2005

² Cheston and Bender 1999

³ Erel 2013

⁴ Han et al. 2009, Weber et al. 2004, Elie et al. 1998, Inouye et al. 1993

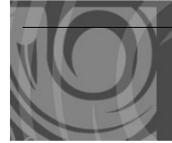
⁵ Hwang 2006, Meldon et al. 2003, McCusker et al. 1999



4. Best Practices



4/5 Best Practices



Evidence

- Limited!
 - Review by Schnitker et al. (2013)
 - Review by Clevenger et al. (2012)

What is the Evidence to Guide Best Practice for the Management of Older People With Cognitive Impairment Presenting to Emergency Departments? A Systematic Review

Linda Schnitker, MN-NP, RN
Melinda Martin-Khan, PhD
Elizabeth Beattie, PhD
Len Gray, MBBS, PhD

J Am Geriatr Soc. 2012 Sep;60(9):1742-8. doi: 10.1111/j.1532-5415.2012.04108.x.

Clinical care of persons with dementia in the emergency department: a review of the literature and agenda for research.

Clevenger CK, Chu TA, Yang Z, Hepburn KW.

Department of Veterans Affairs, Birmingham/Atlanta Geriatric Research, Education and Clinical Center, Atlanta, Georgia; Nell Hodgson Woodruff School of Nursing, Emory University, Atlanta, Georgia.

Abstract

The segment of older adults who present to the emergency department (ED) with cognitive impairment ranges from 21% to 40%. Difficulties inherent in the chaotic ED setting combined with dementia may result in a number of unwanted clinical outcomes, but strategies to minimize these outcomes are lacking. A review of the literature was conducted to examine the practices undertaken in the care of persons with dementia (PWD) specific to the ED setting. PubMed and Cumulative Index to Nursing and Allied Health Literature were searched for published articles specific to the care of PWD provided in the ED. All English-language articles were reviewed; editorials and reflective journals were excluded. Seven articles ultimately met inclusion criteria; all provided Level 7 evidence: narrative review or opinions from authorities. The articles recommended clinical practices that can be categorized into five themes: assessment of cognitive impairment, dementia communication strategies, avoidance of adverse events, alterations to the physical environment, and education of ED staff. Many recommendations are extrapolated from residential care settings. Review results indicate that there is minimal guidance for the care of PWD specific to the ED setting. There are no empirical studies of the care (assessment, interventions) of PWD in the ED. The existing (Level 7) recommendations lack a research base to support their effectiveness or adoption as evidence-based practice. There is a significant opportunity for research to identify and test ways to meet the needs of PWD in the ED to ensure a safe visit, accurate diagnosis, and prudent transfer to the most appropriate level of care.

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PMID: 22965144 [PubMed - in process]

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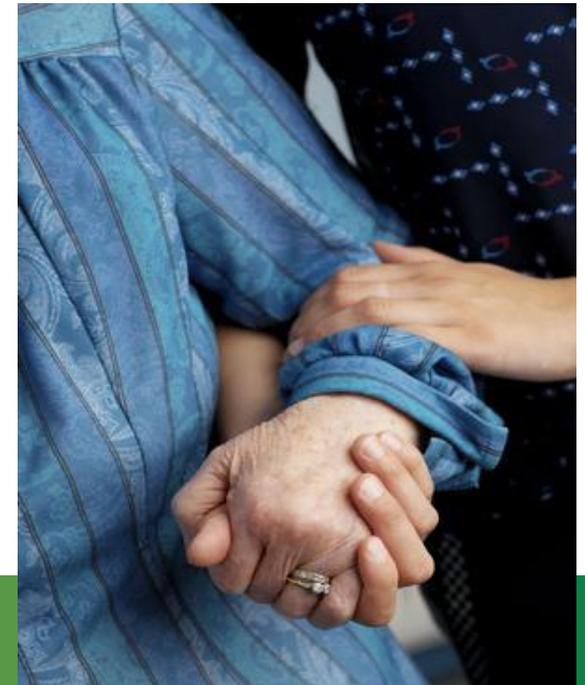


How to best care for older people with cognitive impairment in ED

4/5 Best Practices

Nursing issues: specific needs

- Longer waiting time and periods of immobility:
 - Position Change
 - Pressure Injury Prevention
 - Nutrition
 - Toileting
 - Orientation



4/5 Best Practices

Pain Assessment IN Advanced Dementia PAINAD

	0	1	2	Score
Breathing Independent of vocalization	Normal	Occasional labored breathing. Short period of hyperventilation	Noisy labored breathing. Long period of hyperventilation. Cheyne-stokes respirations	
Negative Vocalization	None	Occasional moan or groan. Low level speech with a negative or disapproving quality	Repeated troubled calling out. Loud moaning or groaning. Crying	
Facial expression	Smiling, or inexpressive	Sad. Frightened. Frown	Facial grimacing	
Body Language	Relaxed	Tense. Distressed pacing. Fidgeting	Rigid. Fists clenched, Knees pulled up. Pulling or pushing away. Striking out	
Consolability	No need to console	Distracted or reassured by voice or touch	Unable to console, distract or reassure	
				TOTAL

it)

¹ Herr et al. 2006

² Hurley et al. 1992

³ Snow et al. 2004

⁴ Kovach et al. 1999

⁵ Warden et al. 2003

⁶ Abbey et al. 2004



4/5 Best Practices

Delirium Symptoms according to DSM-V¹

- A. Disturbance in attention and awareness
- B. The disturbance develops over a short period of time, represents an acute change from baseline attention and awareness, and tends to fluctuate in severity during the course of a day.
- C. An additional disturbance in cognition
- D. The disturbances in Criteria A and C are not better explained by a pre-existing, established or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal such as coma.
- E. There is evidence from the history, physical examination or laboratory findings that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal, or exposure to a toxin, or is due to multiple etiologies.



¹American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Arlington, VA: American Psychiatric Association; 2013.

4/5 Best Practices

DELIRIUM

- I. HYPERACTIVE: hallucinations, repetitive behaviours, aggression, delusions (30%)
- II. HYPOACTIVE: lethargic, quiet, withdrawn (25%)
- III. MIXED (45%)



<http://www.gettyimages.com.au/detail/video/patient-and-visitor-sleeping-in-hospital-room-stock-video-footage/96803967>



4/5 Best Practices

Cognitive Screening Tools Tested in ED:

Screening Tool:	Diagnostic Performance:
▪ Orientation Memory Concentration Test ¹	95% sensitive, 65% specific
▪ Six Item Screener (SIS) ²	63-94% sensitive, 77-86% specific
▪ Mini-Cog ³	75% sensitive, 85% specific
▪ Cognitive Performance Scale (CPS) ⁴	82-85% sensitive, 85.1-87.6% specific
▪ Brief Alzheimer's Screen (BAS) ¹	95% sensitive, 52% specific
▪ Ottawa 3DY5	93.8-95% sensitive, 51-72.8% specific
▪ AD8 ¹	63-83% sensitive, 63-79% specific

¹ Carpenter et al. 2011

² Carpenter 2011, Wilber et al. 2008 & 2005

³ Wilber et al. 2005

⁴ Boyd et al. 2008

⁵ Wilding et al. 2015, Carpenter et al. 2001



4/5 Best Practices

Delirium screening tools tested in ED:

Delirium tool:	Diagnostic Performance:
▪ Delirium Triage Screen ¹	98% sensitive, 55% specific
▪ (Brief) Confusion Assessment Method ¹	78-86% sensitive, 95.8-100% specific
▪ CAM-ICU ² ▪ mCAM-ED ³	68-72% sensitive, 98.6% specific
▪ Richmond Agitation Sedation Scale (RASS) ⁴	82-85% sensitive, 85.1-87.6% specific

¹ Han et al. 2013, Monette et al. 2011

² Han et al. 2014

³ Grossmann et al. 2014

⁴ Han et al. 2015



4/5 Best Practices

The diagnosis of delirium by CAM requires the presence of BOTH features A and B		
CAM Confusion Assessment Method	A. Acute onset	Is there evidence of an acute change in mental status from patient baseline?
	and	Does the abnormal behavior:
	Fluctuating course	<ul style="list-style-type: none"> > come and go? > fluctuate during the day? > increase/decrease in severity?
	B. Inattention	Does the patient:
		<ul style="list-style-type: none"> > have difficulty focusing attention? > become easily distracted? > have difficulty keeping track of what is said?
AND the presence of EITHER feature C or D		
C. Disorganized thinking	Is the patient's thinking	<ul style="list-style-type: none"> > disorganized > incoherent For example does the patient have <ul style="list-style-type: none"> > rambling speech/irrelevant conversation? > unpredictable switching of subjects? > unclear or illogical flow of ideas?
D. Altered level of consciousness	Overall, what is the patient's level of consciousness:	<ul style="list-style-type: none"> > alert (normal) > vigilant (hyper-alert) > lethargic (drowsy but easily roused) > stuporous (difficult to rouse) > comatose (unrousable)



Inouye et al. Clarifying confusion: the confusion assessment method. A new method for detection of delirium. Ann Intern Med. 1990;113(12):941-948.

How to best care for older people with cognitive impairment in ED

4/5 Best Practices

Other Delirium Tools:

- **Delirium severity tools:**

- DRS, Delirium index, delirium assessment scale and delirium severity scale

- **Delirium risk tools:**

- Delirium Risk Assessment Tool (DRAT)¹

<https://www.aci.health.nsw.gov.au/chops/chops-key-principles/delirium-risk-identification-and-preventive-measures/delirium-risk-assessment>



¹ NSW Agency for Clinical Innovation, Cognitive Assessment of the Older Person. 2012, NSW Health, District NSLH.

4/5 Best Practices

Delirium risk factors:

- Systemic illnesses

(<http://www.icudelirium.org/terminology.html>)

- Medications

- Presence of other risk factors



http://www.huffingtonpost.com/david-belk/health-care-costs_b_4066552.html



4/5 Best Practices

Delirium risk factors:

- Older age
- Cognitive Impairment
- Visual and hearing impairment
- Functional dependence
- Dehydration
- Impaired nutritional status
- Pain
- Sleep deprivation
- Surgery



<http://www.reuters.com/article/us-cancer-patients-poor-sleep-linked-mor-idUSTRE53T6M820090430>



4/5 Best Practices

5P's Delirium Screen¹

- **Pee: UTI, dehydration, urine retention**
- Poo: constipation
- Pus: infection
- Pain: unidentified, unmanaged
- Pills: Interactions, adverse events, new medication



4/5 Best Practices

NURSE MANAGEMENT OF DELIRIUM:

1) Cognitive assessment, use reality orientation and cognitive activities ¹	6) Ensure using pt. has hearing aids and/or glasses ³
2) Employ noise reduction strategies and prevent day and night reversal.	7) Maintain mobility, get patient moving ³
3) Basic observations	8) Avoid physical restraints ⁴ and catheterisation ⁵
4) Pain assessment and management ²	9) Provide access to and offer food and fluid regularly ³
5) Involve and inform family, education	10) Managing behaviour

¹ Kellie et al. 2013, Naughton et al. 2005, Milisen et al. 2001

² Milisen et al. 2001

³ Inouye et al. 1999

⁴ Price et al. 2005

⁵ Tropea et al. 2008, Hanhoff et al. 2006, Inouye 2006, Archibald 2002



4/5 Best Practices

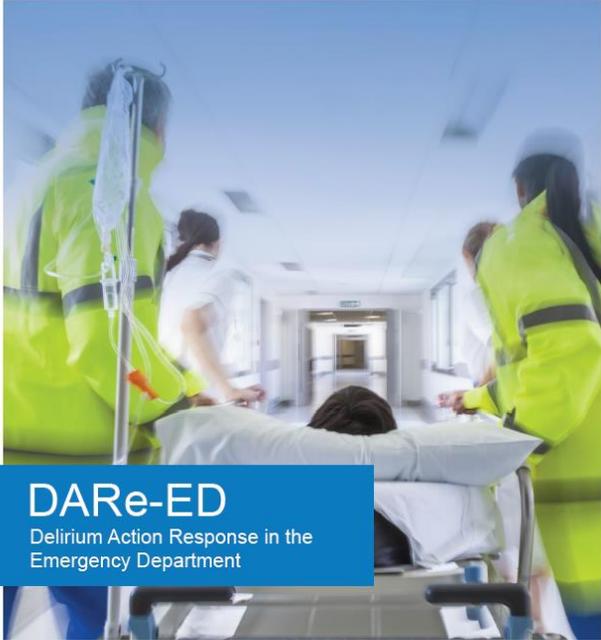
DARe-ED Intervention

Building delirium care for people with dementia into the emergency department (ED): Systematic development of the Delirium Action Response in ED (DARe-ED) intervention

To develop a valid multi-component delirium prevention intervention, *the Delirium Action in ED (DARe-ED) intervention*, for older people with dementia presenting to Emergency Departments (ED).



4/5 Best Practices

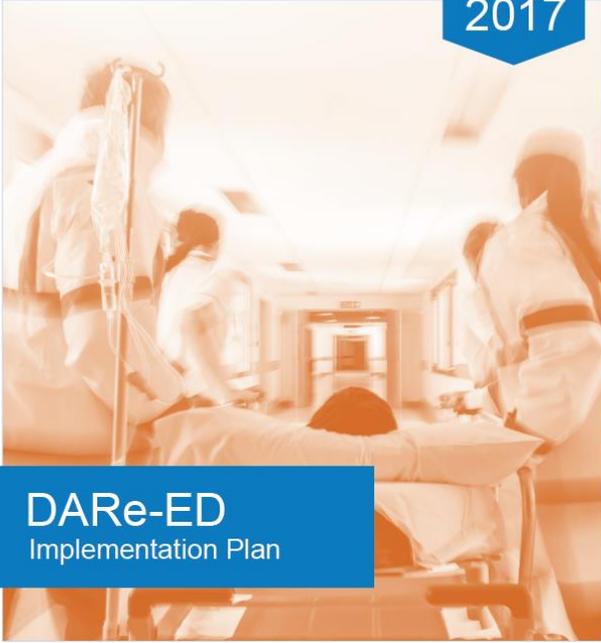


DARe-ED
Delirium Action Response in the
Emergency Department

ED Delirium Prevention
A delirium prevention intervention to optimise the support provided to
people with dementia entering ED that are at risk of developing delirium

 **DCRC**
Dementia Centre for
Research Collaboration

2017



DARe-ED
Implementation Plan

DELIRIUM ACTION RESPONSE IN THE EMERGENCY DEPARTMENT

 **DCRC**
Dementia Centre for
Research Collaboration



4/5 Best Practices

Screening tool to identify patients 'AT RISK'¹

- The Identification of Seniors at Risk (ISAR) tool²
- BRIGHT³
- Triage Risk Screening Tool (TRST)⁴

Risk Factors:

- Cognitive impairment
- Functional issues
- Polypharmacy
- Vision problems
- Decreased independence
- ED use / Hospitalisation



¹ Dendukuri et al. 2004, Warburton et al. 2004, Meldon et al. 2003, McCusker et al. 2003, Mion et al. 2001, McCusker et al. 2001

² McCusker et al. 2003

³ Boyed et al. 2008

⁴ Meldon et al. 2003

4/5 Best Practices

Geriatric interventions in ED

- Comprehensive geriatric assessment (CGA) **AND** Multidisciplinary care coordination teams¹
 - Reduce hospital admission²
 - Reduce nursing home admission³
 - Reduce ED readmission⁴
 - Greater levels of physical³ and mental functioning⁵
 - Improved patient satisfaction³



¹ Hegney et al. 2006, Caplan et al. 2004, McCusker et al. 2003 & 2001, Moss et al. 2002, Mion et al. 2001, McCusker et al. 1999.

² Caplan et al. 2004, Mion et al. 2001.

³ MCCusker et al. 2001.

⁴ Hegney et al. 2006, Caplan et al. 2004.

⁵ Caplan et al. 2004

4/5 Best Practices

Models of care:

- Hand to Home Response Team (H2HRT)
 - Aged-care Services in Emergency Team (ASET)¹
-
- Provide a comprehensive plan of care / discharge plan
 - Refer patients to services
 - Act as a resource for patients on aged care issues
 - Act as a resource for ED staff



¹ Shanley et al. 2009

4/5 Best Practices

Focused Communication¹:

- Involvement of family, carer, GP and agencies²
- Information provided must compensate for their disabilities²
- Effective communication²
- Identification of staff³



¹ Clevenger et al. 2012

² Cunningham and MCWilliam 2006, Baraff et al. 1992, Eliastam 1989.

³ Goldsmith et al. 1997

4/5 Best Practices

Nursing care:

- Identify a key worker¹
- Reduce relocations
- Choose the safest area¹



¹ Archibald 2002

4/5 Best Practices

Nursing care:

- Provide access to and offer food and fluid regularly¹
- Use fall² and pressure injury prevention guidelines
- Avoid physical restraints³ and catheterisation⁴
- Pay attention to caregiver burden⁵



¹ Archibald 2002

² The National Ageing Research Institute 2007

³ Price et al. 2005

⁴ Tropea et al. 2008, Hanhoff et al. 2006, Inouye 2006, Archibald 2002

⁵ Moons et al. 2002

4/5 Best Practices

Review medication list¹

- Beers criteria²
- STOPP START tool kit³
- Prescribing with electronic decision support⁴



¹ Graf et al. 2010, Baraff et al. 1992, Eliastam 1989.

² Beers et al. 2003

³ Gallagher et al. 2008

⁴ Terrell et al 2009

Mr Clarkson, a 86 year old married male, presents to ED on a Friday evening

- Fall at home
- Mild cognitive impairment
- Vision and hearing impaired
- # Humerus (right)



Ambulance ramping



Source: <http://www.theage.com.au/victoria/hospital-woes-hit-ambulance-services-hard-20130709-2pnbn.html> accessed 11/11/2015



1. Geriatric streaming
2. Geriatric-friendly waiting areas

Environmental strategies that may reduce delirium risk on ED arrival



1. Avoid ED in high delirium risk

2. Reduce access block

3. Early screening for delirium
and risk factors

4. Triage pain assessment and
NIA

Environmental
strategies that
may reduce
delirium risk
on ED arrival



How to best care for older people with cognitive impairment in ED

Metro South Health

CARE-PACT

COMPREHENSIVE AGED RESIDENTS EMERGENCY -
PARTNERS IN ASSESSMENT CARE & TREATMENT

A program for high quality
collaborative acute health care delivery
to residents of aged care facilities



Great state. Great opportunity.



Queensland
Government

The image shows a vertical poster for the CARE-PACT program. At the top, it says 'Metro South Health'. Below that is the title 'CARE-PACT' in large white letters on a blue background, with the subtitle 'COMPREHENSIVE AGED RESIDENTS EMERGENCY - PARTNERS IN ASSESSMENT CARE & TREATMENT'. The middle section has a blue background with white text describing the program as a high-quality collaborative acute health care delivery for aged care residents. Below the text is a black and white photograph of an elderly person's hands being gently held by another person's hands. At the bottom, it features the slogan 'Great state. Great opportunity.' and the Queensland Government logo.

Walk-in triage



How to best care for older people with cognitive impairment in ED

Walk-in triage



How to best care for older people with cognitive impairment in ED



How to best care for older people with cognitive impairment in ED

ED acute area: structural environment



How to best care for older people with cognitive impairment in ED







You are in the PAH Emergency Department

Date:

Your nurse is:

Your doctor is:

You are currently awaiting:



4/5 Best Practices



How to best care for older people with cognitive impairment in ED

4/5 Best Practices



4/5 Best Practices

Education resources:

<https://www.dementia.org.au/files/reports/ED-Dementia-Care-Training.pdf>



4/5 Best Practices

Confused older person in ED – Clinical Guide:

- https://www.health.qld.gov.au/data/assets/pdf_file/0019/621550/cope-d-guide.pdf

Department of Health
Clinical Access and Redesign Unit

Confused older person in ED – Clinical Guide

(1) Structured examination
Primary
Vital signs, BSL
GCS / MOQ^{*}
Hydration
Assess for underlying/irreversible cause(s)
Check for signs of stroke (slurred speech, reflex changes)
Assess for source of pain and provide adequate analgesia
Facial inspection
Pressure injuries
Urinary retention
Source of infection

(2) Investigations
ED baseline (all patients)
WTU (MSU)
ECG
UEC, Calcium, LFT, FBE
Blood cultures if infection considered
CXR
Imagined investigations (if clinically indicated)
CT head
Lumbar puncture
Cardiac enzymes, Troponin
Toxicology
Blood gas (venous/arterial)
TFTs, B12, folate, HIV, syphilis, calcium, MRI, EEG

(3) ED management
Interim management plan (4 hours)
Medication / pain relief / IV infusion orders
Observation / BSL frequency / parameters
Fluid orders (IV/SC) including thiamine
Plan for nursing staff
Inpatient & ED team contact
Document delirium diagnosis in EDIS
Pharmacological management in ED (if clinically indicated)
Haloperidol / Droperidol / Midozolan
Ensure doses are adjusted based on patient age, weight and physiological reserve.
Minimum monitoring – continuous O2 saturations, respiratory rate, sedation score / GCS, blood pressure, pulse rate

(4) Inpatient management
Medicoid care
Non-pharmacological comfort cares
Care coordination
Orientation assistance
Attend to sensory deficits (glasses, hearing aids)
Nutrition / Hydration
Falls prevention measures
Supervised mobility and transfers
Pressure injury prevention
Monitoring of IDC if present / regular prompted toileting
Reduce sensory stimulation
Mouth cares
Skin care and monitoring
Bow/ bladder record and cares
Communication with family / carers
Community support referral for family / carers
Pharmacological management of agitation
Oral agents
Haloperidol 0.25-2mg orally q 4hrs (max. of 5mg in 24hrs). Consider a STAT dose if no observed effect after 30mins.
Parenteral Agents (if oral route not possible)
• Haloperidol 0.25 to 1.5mg IV q 4hrs (max. of 5mg in 24hrs). Consider a STAT dose if no observed effect & severe behavioural disturbance[†] after 30mins.
• Midozolan 2.5 mg IV/subcut starting dose (max of 7.5 mg in 24hrs). Consider a STAT dose if no observed effect & severe behavioural disturbance after 30mins.
If considering commencement of regular oral antipsychotic medication, start with low-dose such as
• Haloperidol 0.25 to 0.5mg bid (max 1mg bid) or
• Risperidone 0.25 to 0.5mg (max 1 mg bid)
• Olanzapine 2.5mg starting dose (max 7.5mg in 24hrs if Parkinsonised or Lewy Body disease suspected)

Discharge to usual care setting possible?
YES
Discharge to usual care setting if:
• Allied health review reveals no change from usual functional level
• Medical issue treated and medications reviewed
• 24 hour competent supervision available at home or facility (consider carer stress, capacity and capability)
• Discharge care plan and follow-up arranged

Discharge to usual care setting possible?
NO
Rapid inpatient review
+/- pharmacological management
Rural sites liaise with RSQ or seek telemed support

Agitation improves and is manageable?
NO
Rapid inpatient review
+/- pharmacological management
Rural sites liaise with RSQ or seek telemed support

Agitation improves and is manageable?
YES
Discharge to usual care setting possible?

Discharge to usual care setting possible?
NO
Prioritise for admission to Delirium / General Medicine wards
Interim management plan (*3)
Inpatient management (*4)
General medicine / geriatrician / psychogeriatric or mental health consult
Consider Confusion Assessment Method (CAM) upon admission

Delirium Disturbance of consciousness, attention, cognition and perception that develops over a short period of time (usually hours or days), and tends to fluctuate during the course of the day. Delirium may be a life-threatening and potentially reversible condition.
Delirium care pathways, Department of Health and Ageing, 2011
[†]Severe behavioural Disturbance: Imminent risk of harm to self or others particularly arising from aggression

Great state. Great opportunity.

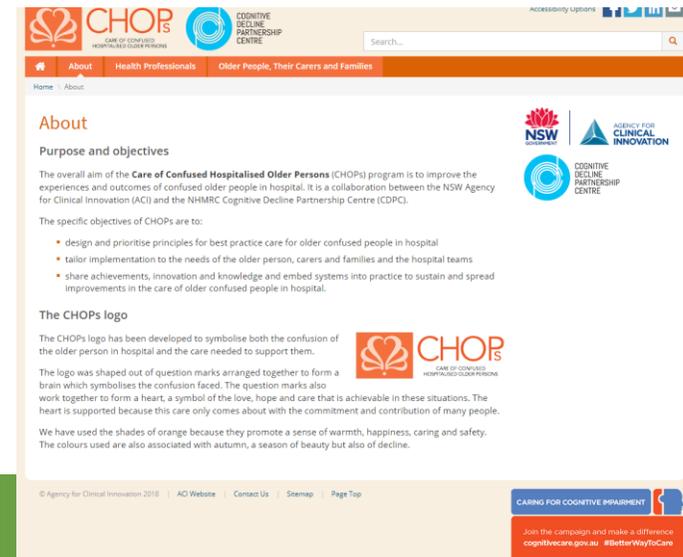
*1 Prother D et al. *BMJ* 2014; 349:f1797
*2 Kahn et al. *Am J Psychiatry* 1980
COPE Clinical Guide - Version 1.1



4/5 Best Practices

Further Reading

- <https://www.acep.org/geriedguidelines>
- <https://www.aci.health.nsw.gov.au/chops/about>



How to best care for older people with cognitive impairment in ED

5. Conclusion



5/5 Conclusion

KEY POINTS:

- Cognitive impairment (CI) is common in the ED population (26% - 40%)¹
- Cognitive impairment may go undetected²
- Recognition of cognitive impairment is critical
- ED patients with CI have an increased risk of negative outcomes and adverse events³
- Evidence based practice
- Increased role of aged care in emergency medicine

¹ Hustey et al. 2003 & 2000, Gerson et al. 2002, Naughton et al. 1995.

² Han et al. 2009, Kakuma et al. 2003, Hustey et al. 2003 & 2000, Elie et al. 2000, Lewis et al. 1995.

³ Hastings et al. 2007, McCusker et al. 1999





Thank You!

Linda.schnitker@qut.edu.au



How to best care for older people with cognitive impairment in ED