

Evidence Sources
Delirium
Clinical Care Standard
July 2016

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ISBN 978-1-925224-51-1

Suggested citation

Australian Commission on Safety and Quality in Health Care. Evidence Sources: Delirium Clinical Care Standard. Sydney: ACSQHC, 2016.

Acknowledgements

Many individuals and organisations have freely given their time and expertise in the development of this paper. In particular, the Commission wishes to thank the Delirium Clinical Care Standard Topic Working Group and other key experts who have given their time and advice. The involvement and willingness of all concerned to share their experience and expertise is greatly appreciated.

Members of the Delirium Clinical Care Standard Topic Working Group include Dr Glenn Arendts, Associate Professor Simon Bell, Associate Professor Ravi Bhat, Professor John Botha, Associate Professor Gideon Caplan, Dr Judy McCrow, Associate Professor Laurie Grealish, Ms Jacinta George, Ms Joan Jackman, Associate Professor Dina LoGiudice, Ms Anne Moehead, Ms Joy Pettingell, Dr Judith Silberberg and Associate Professor Brendan Silbert.

Disclaimer

The Australian Commission on Safety and Quality in Health Care has produced this Evidence Sources document to support the corresponding Clinical Care Standard. The Clinical Care Standard supports the delivery of appropriate care for a defined clinical condition and is based on the best evidence available at the time of development. Healthcare professionals are advised to use clinical discretion and consideration of the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian when applying information contained within the Clinical Care Standard. Consumers should use the information in the Clinical Care Standard as a guide to inform discussions with their healthcare professional about the applicability of the Clinical Care Standard to their individual condition.

Evidence Sources

Delirium Clinical Care Standard

The quality statements for the Delirium Clinical Care Standard were developed in collaboration with the Delirium Clinical Care Standard Topic Working Group and are based on best available evidence at the time of development.

Literature searches are conducted by Commission staff at different stages of development of a Clinical Care Standard. The initial search for this Clinical Care Standard took place between June 2014 and August 2014. A draft evidence summary was prepared which was reviewed for completeness by the Delirium Clinical Care Standard Topic Working Group. Subsequent searches are conducted as the Clinical Care Standard is developed.

The search was aimed at reviewing the evidence-base for each potential quality statement. As set out below, several steps were involved. The first step was to locate national clinical practice guidelines; if relevant, current, based on available evidence developed using systematic methods and endorsed by organisations, they would be the key sources of evidence. The second step was to locate other Australian guidelines, standards, policies, protocols, and international guidelines and standards. The third step was to identify high-level evidence published after the release of the national clinical practice guidelines.

Australian clinical practice guidelines, standards and policies were identified by searching:

- the clinical practice guideline portal of the National Health and Medical Research Council (NHMRC)
- websites of professional colleges and organisations
- websites of state and territory health departments and agencies
- internet search using various search engines.

International clinical practice guidelines were identified by searching:

- guideline clearing houses such as the Agency for Healthcare Research and Quality (AHRQ), and Guidelines International Network (GIN)
- websites of guideline developers, such as the UK's National Institute for Health and Care Excellence (NICE), Scottish Intercollegiate Guideline Network (SIGN).

Other high-level evidence was identified by searching:

- the Cochrane Collaboration for systematic literature reviews and meta analyses
- medical literature databases (Medline, Embase) for systematic reviews and meta-analyses.

A summary of evidence sources for each draft quality statement is attached.

Quality Statement 1	A patient presenting to hospital with one or more key risk factors for delirium receives cognitive screening using a validated test. In addition, the patient and their carer are asked about any recent changes (within hours or days) in the patient's behaviour or thinking.
EVIDENCE SOURCES	
Australian Guidelines	
1. Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, Delirium Clinical Guidelines Expert Working Group. Clinical Practice Guidelines for the Management of Delirium in Older People. 2006 (pp. 32, 37, 40, 43). Accessed May 2015 at: http://docs.health.vic.gov.au/docs/doc/Clinical-Practice-Guidelines-for-the-Management-of-Delirium-in-Older-People---October-2006 .	
International Guidelines	
1. National Institute for Health and Clinical Excellence. Delirium: diagnosis, prevention and management; Clinical Guideline 103. London: NICE, 2010 (pp.56). Accessed May 2015 at: https://www.nice.org.uk/guidance/cg103 .	
Additional Sources	
1. Australian Commission on Safety and Quality In Health Care. A better way to care: Safe and high-quality care for patients with cognitive impairment (dementia and delirium) in hospital - Actions for health service managers. Sydney: ACSQHC; 2014 (pp.14). Accessed May 2015 at: http://www.safetyandquality.gov.au/our-work/cognitive-impairment/better-way-to-care/ .	
2. ACI Aged Health Network. Key principles for care of Confused Hospitalised Older Persons. Agency for Clinical Innovation; 2014 (pp 7,10). Accessed May 2015 at: http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0006/249171/CHOPS-key-principles_2014.pdf .	
3. Inouye S, Westendorp R, Saczynski J. Delirium in elderly people. The Lancet. 2014;383(9920):911-22: http://www.ncbi.nlm.nih.gov/pubmed/23992774 .	
4. Flicker L, Holdsworth K. Aboriginal and Torres Strait Islander People and Dementia: A review of the research. A report for Alzheimer's Australia. Alzheimer's Australia Inc.; 2014; 41 (pp 15). Accessed May 2015 at: https://fightdementia.org.au/sites/default/files/Alzheimers_Australia_Numbered_Publication_41.pdf	
5. Jitapunkul S, Pillay I, Ebrahim S. Delirium in newly admitted elderly patients: a prospective study. The Quarterly Journal of Medicine. 1992;83(300):307-14: http://www.ncbi.nlm.nih.gov/pubmed/1631262 .	
6. O'Keeffe ST, Mulkerrin EC, Nayeem K et al. Use of serial Mini-Mental State Examinations to diagnose and monitor delirium in elderly hospital patients. Journal of the American Geriatrics Society. 2005;53(5):867-70: http://www.ncbi.nlm.nih.gov/pubmed/15877566 .	
7. Hodkinson HM. Evaluation of a mental test score for assessment of mental impairment in the elderly. Age and Ageing. 1972;1(4):233-8: http://www.ncbi.nlm.nih.gov/pubmed/4669880 .	
8. Molloy DW, Standish TI. A guide to the standardized Mini-Mental State Examination. International psychogeriatrics / IPA. 1997;9 Suppl 1:87-94; discussion 143-50: http://www.ncbi.nlm.nih.gov/pubmed/9447431 .	
9. Bellelli G, Morandi A, Davis DH et al. Validation of the 4AT, a new instrument for rapid delirium screening: a study in 234 hospitalised older people. Age and Ageing. 2014;43(4):496-502: http://www.ncbi.nlm.nih.gov/pubmed/24590568 .	
10. Storey JE, Rowland JT, Basic D et al. The Rowland Universal Dementia Assessment Scale (RUDAS): a multicultural cognitive assessment scale. International Psychogeriatrics / IPA. 2004;16(1):13-31: http://www.ncbi.nlm.nih.gov/pubmed/15190994 .	
11. LoGiudice D, Smith K, Thomas J, Lautenschlager NT, Almeida OP, Atkinson D, et al. Kimberley Indigenous Cognitive Assessment tool (KICA): development of a cognitive assessment tool for older indigenous Australians. Int Psychogeriatr 2006;18(2):269- 80. Epub 2006/01/13.	

Quality Statement 2	A patient with cognitive impairment on presentation to hospital, or who has an acute change in behaviour or cognitive function during a hospital stay, is promptly assessed for delirium by a clinician trained and competent in delirium diagnosis and in the use of a validated diagnostic tool. The patient and their carer are asked about any recent changes in the patient's behaviour or thinking. The patient's diagnosis is discussed with them and is documented.
EVIDENCE SOURCES	
Australian Guidelines	
<ol style="list-style-type: none"> 1. Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, Delirium Clinical Guidelines Expert Working Group. Clinical Practice Guidelines for the Management of Delirium in Older People. 2006 (pp.36-38). Accessed May 2015 at: http://docs.health.vic.gov.au/docs/doc/Clinical-Practice-Guidelines-for-the-Management-of-Delirium-in-Older-People---October-2006. 	
International Guidelines	
<ol style="list-style-type: none"> 1. National Institute for Health and Clinical Excellence. Delirium: diagnosis, prevention and management; Clinical Guideline 103. London: NICE, 2010 (pp 57-58). Accessed May 2015 at: https://www.nice.org.uk/guidance/cg103. 	
Additional Sources	
<ol style="list-style-type: none"> 1. ACI Aged Health Network. Key principles for care of Confused Hospitalised Older Persons. Agency for Clinical Innovation; 2014 (pp. 15). Accessed May 2015 at: http://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0006/249171/CHOPS-key-principles_2014.pdf 2. Wei LA, Fearing MA, Sternberg EJ, Inouye SK. The Confusion Assessment Method: a systematic review of current usage. Journal of the American Geriatrics Society. 2008;56(5):823-30: http://www.ncbi.nlm.nih.gov/pubmed/18384586. 3. Inouye SK, van Dyck CH, Alessi CA et al. Clarifying confusion: the confusion assessment method. A new method for detection of delirium. Annals of Internal Medicine. 1990;113(12):941-8: http://www.ncbi.nlm.nih.gov/pubmed/2240918. 4. Shi Q, Warren L, Saposnik G, Macdermid JC. Confusion assessment method: a systematic review and meta-analysis of diagnostic accuracy. Neuropsychiatric disease and treatment. 2013;9:1359-70: http://www.ncbi.nlm.nih.gov/pubmed/24092976. 5. Ely EW, Margolin R, Francis J et al. Evaluation of delirium in critically ill patients: validation of the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU).Critical Care Medicine 2001;29(7):1370-9: http://www.ncbi.nlm.nih.gov/pubmed/11445689. 6. Marcantonio ER, Ngo LH, O'Connor M et al. 3D-CAM: derivation and validation of a 3-minute diagnostic interview for CAM-defined delirium: a cross-sectional diagnostic test study. Annals of Internal Medicine. 2014;161(8):554-61: http://www.ncbi.nlm.nih.gov/pubmed/25329203. 7. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. Washington, DC: American Psychiatric Association; 2013 	

Quality Statement 3	A patient at risk of delirium is offered a set of interventions to prevent delirium and regular monitoring for changes in behaviour, cognition and physical condition.
EVIDENCE SOURCES	
Australian Guidelines	
<ol style="list-style-type: none"> 1. Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, Delirium Clinical Guidelines Expert Working Group. Clinical Practice Guidelines for the Management of Delirium in Older People. 2006 (pp. 50). Accessed May 2015 at: http://docs.health.vic.gov.au/docs/doc/Clinical-Practice-Guidelines-for-the-Management-of-Delirium-in-Older-People---October-2006 	
International Guidelines	
<ol style="list-style-type: none"> 1. National Institute for Health and Clinical Excellence. Delirium: diagnosis, prevention and management; Clinical Guideline 103. London: NICE, 2010 (pp. 57-58, 289). Accessed May 2015 at: https://www.nice.org.uk/guidance/cg103. 	
Additional Sources	
<ol style="list-style-type: none"> 1. Hshieh TT, Yue J, Oh E, Puelle M, Dowal S, Trivison T, et al. Effectiveness of Multicomponent Nonpharmacological Delirium Interventions: A Meta-analysis. JAMA Intern Med. 2015; http://www.ncbi.nlm.nih.gov/pubmed/25643002. 2. Siddiqi N, Harrison JK, Clegg A, Teale EA, Young J, Taylor J, et al. Interventions for preventing delirium in hospitalised non-ICU patients. The Cochrane Database of Systematic Reviews. 2016;3:CD005563. Epub 2016/03/12 http://www.ncbi.nlm.nih.gov/pubmed/26967259 	

Quality Statement 4	A patient with delirium is offered a set of interventions to treat the causes of delirium, based on a comprehensive assessment.
EVIDENCE SOURCES	
Australian Guidelines	
<ol style="list-style-type: none"> 1. Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, Delirium Clinical Guidelines Expert Working Group. Clinical Practice Guidelines for the Management of Delirium in Older People. 2006 (pp. 64,65). Accessed May 2015 at: http://docs.health.vic.gov.au/docs/doc/Clinical-Practice-Guidelines-for-the-Management-of-Delirium-in-Older-People---October-2006. 2. Psychotropic Expert Group. Therapeutic Guidelines: Psychotropic. Melbourne: Therapeutic Guidelines Limited, 2013 	
International Guidelines	
<ol style="list-style-type: none"> 1. National Institute for Health and Clinical Excellence. Delirium: diagnosis, prevention and management; Clinical Guideline 103. London: NICE, 2010 (pp. 58, 344). Accessed May 2015 at: https://www.nice.org.uk/guidance/cg103. 	

Quality Statement 5	A patient with delirium receives care based on their risk of falls and pressure injuries.
EVIDENCE SOURCES	
Australian Guidelines	
<ol style="list-style-type: none"> 1. Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, Delirium Clinical Guidelines Expert Working Group. Clinical Practice Guidelines for the Management of Delirium in Older People. 2006 (pp.61). Accessed May 2015 at: http://docs.health.vic.gov.au/docs/doc/Clinical-Practice-Guidelines-for-the-Management-of-Delirium-in-Older-People---October-2006 	
International Guidelines	
<ol style="list-style-type: none"> 1. National Institute for Health and Clinical Excellence. Delirium: diagnosis, prevention and management; Clinical Guideline 103. London: NICE, 2010 (pp.241). Accessed May 2015 at: https://www.nice.org.uk/guidance/cg103. 	
Additional Sources	
<ol style="list-style-type: none"> 1. Australian and New Zealand Society for Geriatric Medicine. Delirium in Older People: Position Statement 13. 2012. Accessed May 2015 at: http://www.anzsgm.org/documents/PS13DeliriumstatementRevision2012.pdf 2. O'Keeffe S, Lavan J. The prognostic significance of delirium in older hospital patients. Journal of the American Geriatrics Society. 1997;45(2):174-8: http://www.ncbi.nlm.nih.gov/pubmed/9033515. 3. Travers C, Byrne G, Pachana N, Klein K, Gray L. Delirium in Australian hospitals: a prospective study. Current Gerontology and Geriatrics Research. 2013;2013:ID284780: http://www.hindawi.com/journals/cggr/2013/284780/. 4. Watkin L, Blanchard MR, Tookman A, Sampson EL. Prospective cohort study of adverse events in older people admitted to the acute general hospital: risk factors and the impact of dementia. Int J Geriatr Psychiatry. 2012;27(1):76-82.http://www.ncbi.nlm.nih.gov/pubmed/21360591. 	

Quality Statement 6	Treatment with an antipsychotic medicine is only considered if a patient with delirium is distressed and the cause of their distress cannot be addressed and non-drug strategies have failed to ease their symptoms.
EVIDENCE SOURCES	
Australian Guidelines	
<ol style="list-style-type: none"> 1. Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, Delirium Clinical Guidelines Expert Working Group. Clinical Practice Guidelines for the Management of Delirium in Older People. 2006 (pp.64-5). Accessed May 2015 at http://docs.health.vic.gov.au/docs/doc/Clinical-Practice-Guidelines-for-the-Management-of-Delirium-in-Older-People---October-2006. 2. Psychotropic Expert Group. Therapeutic Guidelines: Psychotropic. Melbourne: Therapeutic Guidelines Limited, 2013 	
International Guidelines	
<ol style="list-style-type: none"> 1. National Institute for Health and Clinical Excellence. Delirium: diagnosis, prevention and management; Clinical Guideline 103. London: NICE, 2010 (pp.68, 364). Accessed May 2015 at: https://www.nice.org.uk/guidance/cg103. 	
Additional Sources	
<ol style="list-style-type: none"> 1. AMH Aged Care Companion. Adelaide: Australian Medicines Handbook Pty Ltd; 2014. 2. NSW Department of Health. Guidelines for working with people with challenging behaviours in residential aged care facilities - using appropriate interventions and minimising restraint. Sydney: NSW Department of Health; 2006 [cited December 2015]. Available from http://www.health.nsw.gov.au/policies/gl/2006/pdf/GL2006_014.pdf 3. Peisah C, Chan DK, McKay R, Kurrle SE, Reutens SG. Practical guidelines for the acute emergency sedation of the severely agitated older patient. Intern Med J. 2011;41(9):651-7. Epub 2011/09/09 4. Australian and New Zealand Society for Geriatric Medicine. Delirium in older people: position statement 13. 2012 [cited December 2015]; Available from: http://www.anzsgm.org/documents/PS13DeliriumstatementRevision2012.pdf 5. Australian Commission on Safety and Quality in Health Care. Preventing falls and harm from falls in older people. Best practice guidelines for Australian hospitals. Sydney: ACSQHC, 2009. 6. Department of Health WA. Delirium model of care. Perth: Aged Care Network, Department of Health, Western Australia; 2008; Available from: http://www.healthnetworks.health.wa.gov.au/modelsofcare/docs/Delirium_Model_of_Care.pdf 	

Quality Statement 7	Before a patient with current or resolved delirium leaves hospital, the patient and their carer are involved in the development of an individualised care plan and are provided with information about delirium. The plan is developed collaboratively with the patient's general practitioner and describes the ongoing care that the patient will require after they leave hospital. It includes a summary of any changes in medicines, strategies to help reduce the risk of delirium and prevent complications from it, and any other ongoing treatments. This plan is provided to the patient and their carer before discharge, and to their general practitioner and other ongoing clinical providers within 48 hours of discharge.
EVIDENCE SOURCES	
Australian Guidelines	
<ol style="list-style-type: none"> 1. Clinical Epidemiology and Health Service Evaluation Unit, Melbourne Health, Delirium Clinical Guidelines Expert Working Group. Clinical Practice Guidelines for the Management of Delirium in Older People. 2006 (pp 66). Accessed May 2015 at: http://docs.health.vic.gov.au/docs/doc/Clinical-Practice-Guidelines-for-the-Management-of-Delirium-in-Older-People---October-2006 2. Psychotropic Expert Group. Therapeutic Guidelines: Psychotropic. Melbourne: Therapeutic Guidelines Limited, 2013 	
International Guidelines	
<ol style="list-style-type: none"> 1. National Institute for Health and Clinical Excellence. Delirium: diagnosis, prevention and management; Clinical Guideline 103. London: NICE, 2010 (pp.68). Accessed May 2015 at: https://www.nice.org.uk/guidance/cg103. 	
Additional Sources	
<ol style="list-style-type: none"> 1. UK NHS. What is a care plan? Accessed May 2015 at: http://www.nhs.uk/Planners/Yourhealth/Pages/Careplan.aspx. 	