NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health and social care directorate

Quality standards and indicators

Briefing paper

Quality standard topic: Delirium

Output: Prioritised quality improvement areas for development.

Date of Quality Standards Advisory Committee meeting: 18th December 2013

Contents

1 Introduction

This briefing paper presents a structured overview of potential quality improvement areas for delirium. It provides the Committee with a basis for discussing and prioritising quality improvement areas for development into draft quality statements and measures for public consultation.

1.1 Structure

This briefing paper includes a brief description of the topic, a summary of each of the suggested quality improvement areas and supporting information.

If relevant, recommendations selected from the key development source below are included to help the Committee in considering potential statements and measures.

1.2 Development source

The key development source referenced in this briefing paper is:

Delirium. NICE clinical guideline 103 (2010).

2 Overview

2.1 Focus of quality standard

This quality standard will cover the diagnosis, prevention and management of delirium in adults (18 years and over).

2.2 Definition

Delirium (sometimes caused 'acute confusional state') is a common clinical syndrome characterised by disturbed consciousness, cognitive function or perception, which has an acute onset and fluctuating course. It usually develops over 1-2 days. It is a serious condition that may be associated with poor outcomes. However, it can be prevented and treated if dealt with urgently.

Delirium can be hypoactive or hyperactive but some people show signs of both (mixed). People with hyperactive delirium have heightened arousal and can be restless, agitated and aggressive. People with hypoactive delirium become withdrawn, quiet and sleepy. Hypoactive and mixed delirium can be more difficult to recognise.

It can be difficult to distinguish between delirium and dementia and some people may have both conditions. If clinical uncertainty exists over the diagnosis, the person should be managed initially for delirium.

2.3 Incidence and prevalence

Older people and people with dementia, severe illness or a hip fracture are more at risk of delirium. The prevalence of delirium in people on medical wards in hospital is about 20% to 30%, and 10% to 50% of people having surgery develop delirium. In long-term care the prevalence is under 20%. The prevalence tends to rise with age. But reporting of delirium is poor in the UK, indicating that awareness and reporting procedures need to be improved.

There is a significant burden associated with this condition. Compared with people who do not develop delirium, people who develop delirium may:

- Need to stay longer in hospital or in critical care
- Have an increased incidence of dementia
- Have more hospital-acquired complications, such as falls and pressure sores
- Be more likely to need to be admitted to long-term care if they are in hospital
- Be more likely to die.

2.4 Management

A person may already have delirium when they present to hospital or long-term care or it may develop during a hospital admission or residential stay in long-term care. It is important that risk factors are identified and interventions designed to reduce the impact of these risk factors are put in place, for example by ensuring the care environment supports orientation. Management of delirium relies on early recognition, elimination or correction of underlying causal factors and general symptomatic and supportive measures, such as listening and talking to the person experiencing delirium and ensuring adequate fluid intake. Second line management may be required for those who are distressed or are considered a risk to themselves or others, and non-pharmacological de-escalation approaches are recommended, with short-term medication only recommended if these techniques are unsuccessful.

See appendix 1for the associated care pathway and algorithms from NICE clinical guideline 103.

2.5 National Outcome Frameworks

Table 1 shows the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

Table 1 NHS Outcomes Framework 2013/14

Domain	Overarching indicators and improvement areas
4 Ensuring that people have a positive experience of care	***Overarching indicator*** 4b Patient experience of hospital care

3 Summary of suggestions

3.1 Responses

In total 3 stakeholders responded to the 2-week engagement exercise 22/10/2013 – 05/11/2013.

Stakeholders were asked to suggest up to 5 areas for quality improvement. Specialist committee members were also invited to provide suggestions. The responses have been merged and summarised in table 2 for further consideration by the Committee.

Full details on the suggestions provided are given in appendix 2 for information.

Table 2 Summary of suggested quality improvement areas

Suggested area for improvement	**Stakeholders**
Prevention	BGS
Detection	BGS, ICS, SCM
Identification of dementia	BGS
Treatment for pain and agitation	BGS
Support for patients and carers • Involving relatives • Information to explain experience of the condition	BGS, SCM
Follow up	SCM
ICS, Intensive Care Society BGS, British Geriatrics Society PSD, NHS England Patient Safety Division SCM, Specialist Committee Member	

4 Suggested improvement areas

4.1 Prevention

4.1.1 Summary of suggestions

Stakeholders suggested that widespread implementation of delirium prevention methods has not occurred.

4.1.2 Selected recommendations from development source

Table 3 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 3 to help inform the Committee's discussion.

Table 3 Specific areas for quality improvement

Suggested quality improvement area	Suggested source guidance recommendations
Delirium prevention	**Interventions to prevent delirium** NICE CG103 Recommendations 1.3.1 and 1.3.2 (KPIs), and 1.3.3.1 – 1.3.3.10

Interventions to prevent delirium

NICE CG103 – Recommendation 1.3.1 (key priority for implementation)

Ensure that people at risk of delirium are cared for by a team of healthcare professionals who are familiar to the person at risk. Avoid moving people within and between wards or rooms unless absolutely necessary.

NICE CG103 – Recommendation 1.3.2 (key priority for implementation)

Give a tailored multicomponent intervention package:

- Within 24 hours of admission, assess people at risk for clinical factors contributing to delirium.
- Based on the results of this assessment, provide a multicomponent intervention tailored to the person's individual needs and care setting as described in recommendations 1.3.3.1-1.3.3.10.

NICE CG103 – Recommendation 1.3.3.1

Address cognitive impairment and/or disorientation by:

- providing appropriate lighting and clear signage; a clock (consider providing a 24-hour clock in critical care) and a calendar should also be easily visible to the person at risk
- talking to the person to re-orientate them by explaining where they are, who they are, and what your role is
- introducing cognitively stimulating activities (for example, reminiscence)
- facilitating regular visits from family and friends.

NICE CG103 – Recommendation 1.3.3.2

Address dehydration and/or constipation by:

- ensuring adequate fluid intake to prevent dehydration by encouraging the person to drink – consider offering subcutaneous or intravenous fluids if necessary
- taking advice if necessary when managing fluid balance in people with comorbidities (for example, heart failure or chronic kidney disease).

NICE CG103 – Recommendation 1.3.3.3

Assess for hypoxia and optimise oxygen saturation if necessary, as clinically appropriate.

NICE CG103 – Recommendation 1.3.3.4

Address infection by:

- looking for and treating infection
- avoiding unnecessary catheterization
- implementing infection control procedures in line with Infection control (NICE clinical guideline 2).

NICE CG103 – Recommendation 1.3.3.5

Address immobility or limited mobility through the following actions:

- Encourage people to:
    - mobilise soon after surgery

    - walk (provide appropriate walking aids if needed – these should be accessible at all times).

- Encourage all people, including those unable to walk, to carry out active range-of-motion exercises.

NICE CG103 – Recommendation 1.3.3.6

Address pain by:

- assessing for pain
- looking for non-verbal signs of pain, particularly in those with communication difficulties (for example, people with learning difficulties or dementia, or people on a ventilator or who have a tracheostomy)
- starting and reviewing appropriate pain management in any person in whom pain is identified or suspected.

NICE CG103 – Recommendation 1.3.3.7

Carry out a medication review for people taking multiple drugs, taking into account both the type and number of medications.

NICE CG103 – Recommendation 1.3.3.8

Address poor nutrition by:

- following the advice given on nutrition in Nutrition support in adults (NICE clinical guideline 32)
- if people have dentures, ensuring they fit properly.

NICE CG103 – Recommendation 1.3.3.9

Address sensory impairment by:

- resolving any reversible cause of the impairment, such as impacted ear wax
- ensuring hearing and visual aids are available to and used by people who need them, and that they are in good working order.

NICE CG103 – Recommendation 1.3.3.10

Promote good sleep patterns and sleep hygiene[1] by:

- avoiding nursing or medical procedures during sleeping hours, if possible
- scheduling medication rounds to avoid disturbing sleep
- reducing noise to a minimum during sleep periods.

4.1.3 Current UK practice

Following implementation of a delirium scoring tool in a Cardiothoracic Critical Care Unit, an audit of admissions was conducted over a 6 week period[2]. The audit showed that of the 23 patients who suffered with delirium during the audit period only 2 had all the identified supportive and preventative measures instigated. With reorientation, pain management and sensory impairment most frequently addressed but orientating stimuli such as a clock, mobilization, promotion of sleep and a familiar nurse caring for the patient the least commonly instigated.

The national inpatient survey[3] (as noted in the King's Fund report on the continuity of care for older hospital patients[4]) asks patients how many times they moved during their last 'admission episode'. In 2010 the majority (63%) reported staying in one ward, 28% moved once and 8% were in 3 or more wards. The King's Fund report also highlights results from 2 small audits of transfers of care in one NHS trust. The first audit collected data on 12 patients (10 medical and 2 surgical), who were transferred from acute care into rehabilitation settings. 7 out of the 12 were moved at least once out of hours, 3 were moved 3 times out of hours, and 10 were moved after 8pm. The second audit collected data on 10 mostly orthopaedic patients who were transferred from the acute hospital to a community hospital. It showed that all but one of the patients experienced 3 transfers (1 patient had 4), and that the patients typically came into the emergency department, were transferred first to a medical admissions unit, then to one or more acute wards, and finally to rehabilitation.

The full clinical guideline 103[5] notes that the introduction of delirium prevention protocols into routine care has been slow, partly because the existing research evidence base is fragmented and not well known to clinicians.

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[1] For more information on good sleep hygiene, see Parkinson's disease (NICE clinical guideline 35).
[2] Shaughnessy L (Jan. 2013) Introducing delirium screening in a cardiothoracic critical care unit. Nursing in Critical Care 18 (1): 8-13.
[3] Care Quality Commission (2011) *National NHS patient Survey Programme. Survey of adult inpatients 2010. Full national results with historical comparisons*.
[4] Cornwell, Levenson, Sonola and Poteliakhoff (Mar. 2012) Continuity of care for older hospital patients: a call for action. London: King's Fund.
[5] National Clinical Guideline Centre (2012) Delirium: diagnosis, prevention and management

4.2 Detection

4.2.1 Summary of suggestions

Stakeholders highlighted that delirium is under-detected due to a number of reasons, including lack of widespread implementation of screening tools, and staff education. There is no simple test for delirium, and it is important that staff recognise the signs of delirium in order to communicate this to patients and relatives. Detection of delirium is important for many reasons including effective treatment, implications for consent/capacity, treatment of distress, communication with patient and families, management of clinical risk and ensuring good hydration. Stakeholders suggested that the recognition of delirium is particularly poor in patients who have been critically ill, especially after they have been discharged from hospital into the community. Early diagnosis can lead to rapid improvement with decreased length of admission and reduced long term complications. Early identification of patients with delirium and patients at increased risk is an essential first step in improving the management and outcome for this serious condition.

4.2.2 Selected recommendations from development source

Table 4 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 4 to help inform the Committee's discussion.

Table 4 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Detection of delirium	**Indicators of delirium: at presentation** NICE CG103 Recommendation 1.2.1 (KPI) **Indicators of delirium: daily observations** NICE CG103 Recommendation 1.4.1

Indicators of delirium: at presentation

NICE CG103 Recommendation 1.2.1 (key priority for implementation)

At presentation, assess people at risk for recent (within hours or days) changes or fluctuations in behaviour. These may be reported by the person at risk, or a carer or relative. Be particularly vigilant for behaviour indicating hypoactive delirium (marked*). These behaviour changes may affect:

- Cognitive function: for example, worsened concentration*, slow responses*, confusion.

- Perception: for example, visual or auditory hallucinations.
- Physical function: for example, reduced mobility*, reduced movement*, restlessness, agitation, changes in appetite*, sleep disturbance.
- Social behaviour: for example, lack of cooperation with reasonable requests, withdrawal*, or alterations in communication, mood and/or attitude.

If any of these behaviour changes are present, a healthcare professional who is trained and competent in diagnosing delirium should carry out a clinical assessment to confirm the diagnosis.

Indicators of delirium: daily observations

NICE CG103 Recommendation 1.4.1

Observe, at least daily, all people in hospital or long-term care for recent (within hours or days) changes or fluctuations in usual behaviour (see recommendation 1.2.1). These may be reported by the person at risk, or a carer or relative. If any of these behaviour changes is present, a healthcare professional who is trained and competent in the diagnosis of delirium should carry out a clinical assessment to confirm the diagnosis.

4.2.3 Current UK practice

A local audit of diagnosis of delirium on an intensive care unit[6], looking at 60 sets of clinical case notes, showed that a record of delirium assessment was documented in only 4 cases (7%), yet 16 patients (27%) were found to be delirious. A re-audit found that after introduction of a confusion assessment flow sheet in the patients' notes 56 out of 91 (62%) were completed.

The Royal College of Psychiatrists' national audit of dementia[7] showed that 55% of hospitals had a policy or guideline in place to ensure patients with dementia were assessed for the presence of delirium at presentation.

An audit of 710 cases admitted to a large north London general hospital Medical Acute Admissions Unit (MAAU)[8], where all patients aged over 70 were screened for delirium, showed that 110 (15.5%) were delirium cases and of these, 79 (72%) were not detected by clinical teams. The study observed a higher rate of undiagnosed delirium compared with previously described non-detection rates of between 33 and 66%, and is closer to a non-detection rate of 65% which was identified in a busy

[6] Basu J (2011) Underdiagnosis of delirium on an intensive care unit *The Association of Anaesthetists of Great Britain and Ireland. Conference publication*. (var.pagings) 66(11) (pp 1062-1063)
[7] Royal College of Psychiatrists (2013) National audit of dementia.
[8] Collins N, Blanchard MR, Tookman A et al. (Jan. 2010) Detection of delirium in the acute hospital. Age & Ageing 39 (1): 131-135

emergency department. It was thought that previous studies had been conducted on general medical wards, and that the rapid transfer of patients through the MAAU made diagnosis of delirium even more of a challenge. It was also noted that as undocumented delirium was assumed to equate undetected delirium, the observed higher rate of undiagnosed delirium may also reflect poorer documentation standards in busy clinical settings.

A survey of members of the UK Intensive Care Society[9] showed that only 25% of consultant intensivists routinely screen for delirium.

A retrospective review of 101 sets of hospice case notes for admissions to a 32-bed hospice in Leeds[10] showed that 36 patients were documented as having altered mental state during inpatient stay, but 24 of these had not been screened on admission. In 23 cases, altered mental state was noted within 1 day of admission and may have been evident on screening at the first assessment. A formal cognitive assessment is not appropriate on all occasions, but it is suggested that cognitive screening of often omitted from hospice admission assessments where it would have been appropriate.

[9] Mac SR, Barber V, Page V et al. (Apr. 2010) A national survey of the management of delirium in UK intensive care units. Qjm 103 (4): 243-251.
[10] Smith J, Adcock L (Apr. 2012) The recognition of delirium in hospice inpatient units. Palliative Medicine 26 (3): 283-285.

4.3 Identification of dementia

4.3.1 Summary of suggestions

Stakeholders highlighted that the majority of older people with delirium also have dementia, and delirium can be seen as a common complication of dementia. Identification of underlying dementia is very important for the quality of life of the patient, and may directly impact on future delirium risk, so the opportunity for diagnosing dementia should be taken.

4.3.2 Selected recommendations from development source

Table 5 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 5 to help inform the Committee's discussion.

Table 5 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Identification of dementia	**If delirium does not resolve** NICE CG103 Recommendation 1.6.6

If delirium does not resolve

NICE CG103 Recommendation 1.6.6

For people in whom delirium does not resolve:

- Re-evaluate for underlying causes
- Follow up and assess for possible dementia[11].

4.3.3 Current UK practice

No current practice data identified.

[11] For more information on dementia, see Dementia (NICE clinical guideline 42).

4.4 Treatment for pain and agitation

4.4.1 Summary of suggestions

Stakeholders suggested that there is wide variation in the drugs used for analgesia and agitation, with evidence suggesting patients with cognitive impairment receive less analgesic drugs than they should, and sedative drugs for agitation in patients being over-used. The correct drug treatment is important as such drugs can precipitate or prolong delirium.

4.4.2 Selected recommendations from development source

Table 6 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 6 to help inform the Committee's discussion.

Table 6 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Treatment for pain and agitation	**Interventions to prevent delirium** NICE CG103 Recommendation 1.3.3.6 **Distressed people** NICE CG103 Recommendations 1.6.4 (KPI) and 1.6.5

Interventions to prevent delirium

NICE CG103 Recommendation 1.3.3.6

Address pain by:

- assessing for pain
- looking for non-verbal signs of pain, particularly in those with communication difficulties (for example, people with learning difficulties or dementia, or people on a ventilator or who have a tracheostomy)
- starting and reviewing appropriate pain management in any person in whom pain is identified or suspected.

Distressed people

NICE CG103 Recommendation 1.6.4 (key priority for implementation)

If a person with delirium is distressed or considered a risk to themselves or others and verbal and non-verbal de-escalation techniques are ineffective or inappropriate,

consider giving short-term (usually for 1 week or less) haloperidol or olanzapine[12]. Start at the lowest clinically appropriate dose and titrate cautiously according to symptoms.

NICE CG103 Recommendation 1.6.5

Use antipsychotic drugs with caution or not at all for people with conditions such as Parkinson's disease or dementia with Lewy bodies[13].

4.4.3 Current UK practice

A local audit of diagnosis of delirium on an intensive care unit[14] showed that in most cases of delirium non-pharmacological management was implemented, but only 6 out of 16 cases (38%) were prescribed appropriately.

A survey of members of the UK Intensive Care Society[15] showed that hyperactive delirium is treated pharmacologically by 95% of consultant intensivists, with hypoactive delirium treated pharmacologically by 25% (haloperidol the most common agent used in both). 73% chose haloperidol as their first treatment for hyperactive delirium. 64% of these specified a starting dose, with 83% using a dose of 5 mg or less. Haloperidol was also the most popular second line agent for treatment of hyperactive delirium, although no pharmacological treatment was also a commonly used therapeutic option. In the management of hypoactive delirium 73% would not use medications as first line therapy.

Following implementation of a delirium scoring tool in a Cardiothoracic Critical Care Unit, an audit of admissions was conducted over a 6 week period[16]. The audit showed that delirious patients were prescribed haloperidol 40% of the time. Of the 23 patients who suffered with delirium during the audit period only 2 had all the identified supportive and preventative measures instigated. With reorientation, pain management and sensory impairment most frequently addressed but orientating stimuli such as a clock, mobilization, promotion of sleep and a familiar nurse caring for the patient the least commonly instigated.

[12] Haloperidol and olanzapine do not have UK marketing authorisation for this indication.
[13] For more information on the use of antipsychotics for these conditions, see 'Parkinson's disease' (NICE clinical guideline 35) and 'Dementia' (NICE clinical guideline 42).
[14] Basu J (2011) Underdiagnosis of delirium on an intensive care unit *The Association of Anaesthetists of Great Britain and Ireland. Conference publication*. (var.pagings) 66(11) (pp 1062-1063)
[15] Mac SR, Barber V, Page V et al. (Apr. 2010) A national survey of the management of delirium in UK intensive care units. Qjm 103 (4): 243-251.
[16] Shaughnessy L (Jan. 2013) Introducing delirium screening in a cardiothoracic critical care unit. Nursing in Critical Care 18 (1): 8-13.

A survey of 20 intensive care units across England[17] showed that 60% of intensive care doctors use haloperidol as first line therapy for mild hyperactive intensive care delirium, with 10% using olanzapine and 30% using benzodiazepines. For moderate-to-severe delirium 65% used haloperidol as first line, 5% olanzapine and the rest used benzodiazepines.

[17] Malhotra R (2012) A survey of intensive care units: First line drug therapy for delirium. Journal of the Intensive Care Society.13 (2) (pp 173-174), 2012.Date of Publication: April 2012. (2): 173-174

4.5 Support for patients and carers

4.5.1 Summary of suggestions

Involving relatives

Stakeholders highlighted that relatives and carers have a role to play in treating delirium in that they can comfort the patient and help explain what is happening. People with delirium may react better to a familiar face so it is important that relatives and carers are involved.

Information to explain experience of the condition

Some of the distress suffered by patients and relatives can be alleviated by helping them understand what delirium is and why they are, or may have, suffered from it. Information produced by support groups can help patients to understand delirium in simpler terms, from people who have experienced it. Stakeholders noted that a high percentage of patients suffer hallucinations and believe that they are the only ones. It is important that this is explained as a normal element of the condition.

4.5.2 Selected recommendations from development source

Table 7 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 7 to help inform the Committee's discussion.

Table 7 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Support for patients and carers – involving relatives	**Initial management** NICE CG103 Recommendation 1.6.2
Support for patients and carers – information to explain experience of the condition	**Information and support** NICE CG103 Recommendation 1.7.1

Support for patients and carers – involving relatives

Initial management

NICE CG103 Recommendation 1.6.2

Ensure effective communication and reorientation (for example explaining where the person is, who they are, and what your role is) and provide reassurance for people

diagnosed with delirium. Consider involving family, friends and carers to help with this. Provide a suitable care environment (see recommendation 1.3.1).

Support for patients and carers – information to explain experience of the condition

Information and support

NICE CG103 Recommendation 1.7.1

Offer information to people who are at risk of delirium or who have delirium, and their family and/or carers, which:

- informs them that delirium is common and usually temporary
- describes people's experience of delirium
- encourages people at risk and their families and/or carers to tell their healthcare team about any sudden changes or fluctuations in behaviour
- encourages the person who has had delirium to share their experience of delirium with the healthcare professional during recovery
- advises the person of any support groups.

4.5.3 Current UK practice

No current practice data identified.

4.6 Follow up

4.6.1 Summary of suggestions

Stakeholders highlighted that sometimes when a patient has been discharged to a ward or home they can still be suffering from delirium. Follow up, for example providing the opportunity to attend a follow up clinic, or being provided with information at an appropriate time after their hospital stay, can help manage current issues and any potential future problems.

4.6.2 Selected recommendations from development source

Table 8 below highlights recommendations that have been provisionally selected from the development source that may support potential statement development. These are presented in full after table 8 to help inform the Committee's discussion.

Table 8 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Follow up	**If delirium does not resolve** NICE CG103 Recommendation 1.6.6 **Information and support** NICE CG103 Recommendation 1.7.1

If delirium does not resolve

NICE CG103 Recommendation 1.6.6

For people in whom delirium does not resolve:

- Re-evaluate for underlying causes
- Follow up and assess for possible dementia[18].

Information and support

NICE CG103 Recommendation 1.7.1

Offer information to people who are at risk of delirium or who have delirium, and their family and/or carers, which:

- informs them that delirium is common and usually temporary
- describes people's experience of delirium

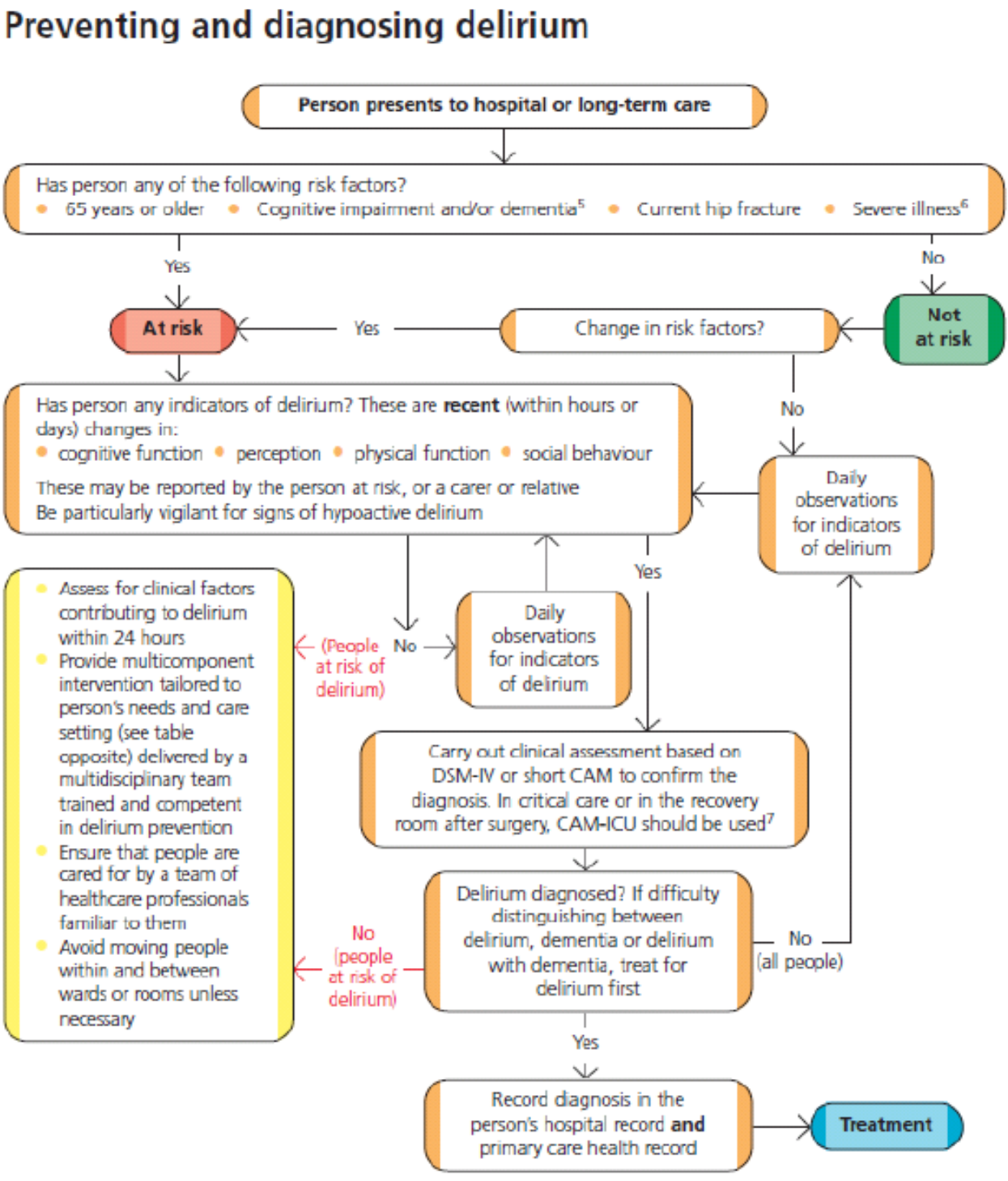
[18] For more information on dementia, see Dementia (NICE clinical guideline 42).

- encourages people at risk and their families and/or carers to tell their healthcare team about any sudden changes or fluctuations in behaviour
- encourages the person who has had delirium to share their experience of delirium with the healthcare professional during recovery
- advises the person of any support groups.

4.6.3 Current UK practice

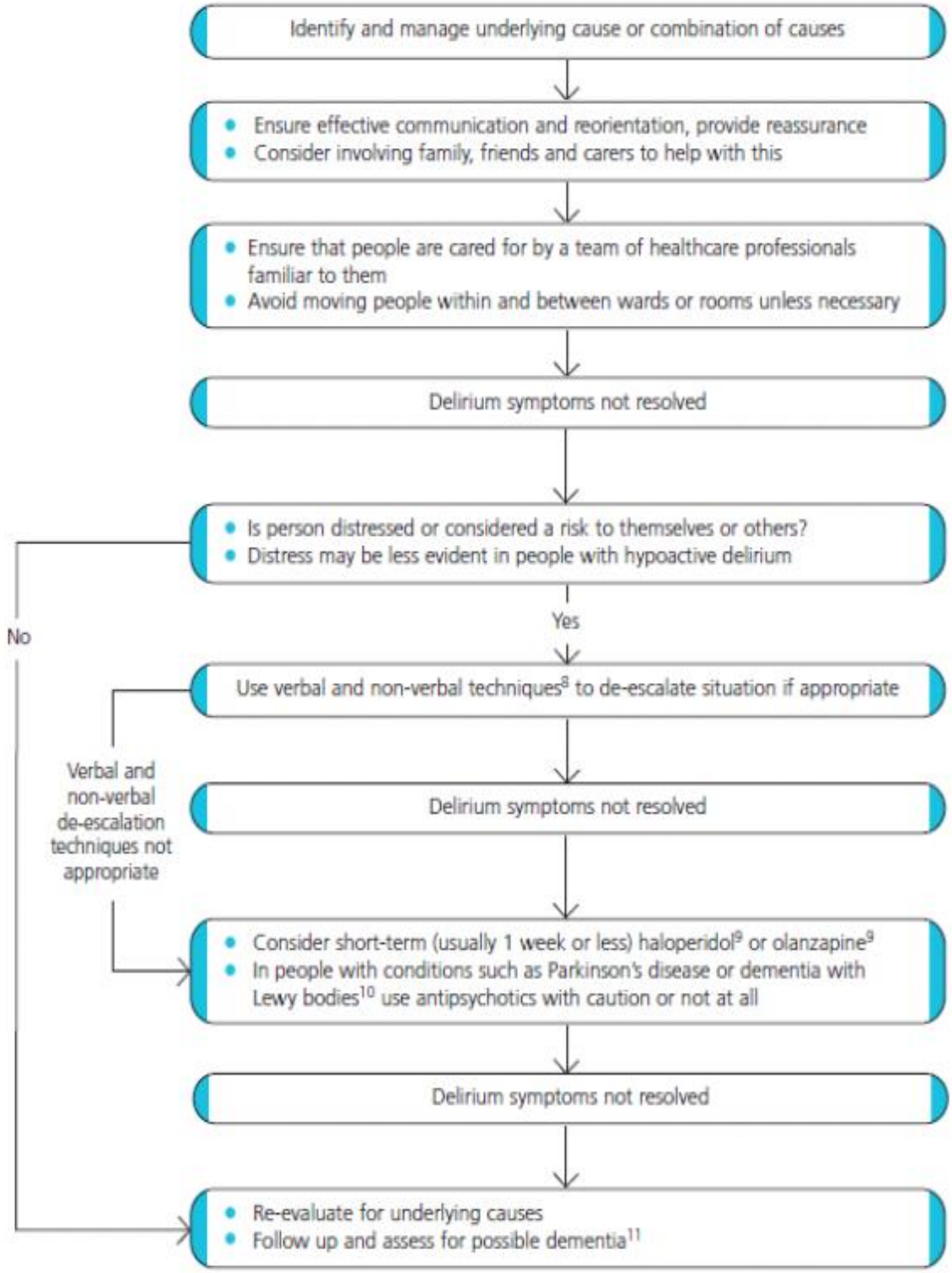
No current practice information was identified. It may be relevant to note that a recommendation on documenting a diagnosis of delirium in both the person's hospital record and in their primary care health record is included in the guideline as the GDG considered that people recovering from delirium may not receive adequate follow up care because of poor communication between hospitals and GPs, and hospitals and long-term care facilities.

Appendix 1: Additional information



[5] If cognitive impairment is suspected, confirm using a standardised and validated cognitive impairment measure. If dementia is suspected, refer to 'Dementia: supporting people with dementia and their carers in health and social care' (NICE clinical guideline 42).
[6] For further information on recognising and responding to acute illness in adults in hospital see 'Acutely ill patients in hospital' (NICE clinical guideline 50).
[7] A healthcare professional trained and competent in the diagnosis of delirium should carry out this assessment.

Treating delirium



[8] See 'Violence' (NICE clinical guideline 25).
[9] Haloperidol and olanzapine do not have UK marketing authorisation for this indication.
[10] For more information on the use of antipsychotics for these conditions, see 'Parkinson's disease' (NICE clinical guideline 35) and 'Dementia' (NICE clinical guideline 42).
[11] For more information on dementia see 'Dementia' (NICE clinical guideline 42).

Appendix 2: Key priorities for implementation (CG103)

Recommendations that are key priorities for implementation in the source guideline and that have been referred to in the main body of this report are highlighted in grey.

Risk factor assessment

When people first present to hospital or long-term care, assess them for the following risk factors. If any of these risk factors is present, the person is at risk of delirium.

- Age 65 years or older.
- Cognitive impairment (past or present) and/or dementia[19]. If cognitive impairment is suspected, confirm it using a standardised and validated cognitive impairment measure.
- Current hip fracture.
- Severe illness (a clinical condition that is deteriorating or is at risk of deterioration[20]. [recommendation 1.1.1]

Indicators of delirium: at presentation

At presentation, assess people at risk for recent (within hours or days) changes or fluctuations in behaviour. These may be reported by the person at risk, or a carer or relative.

Be particularly vigilant for behaviour indicating hypoactive delirium (marked*). These behaviour changes may affect:

- Cognitive function: for example, worsened concentration*, slow responses*, confusion.
- Perception: for example, visual or auditory hallucinations.
- Physical function: for example, reduced mobility*, reduced movement*, restlessness, agitation, changes in appetite*, sleep disturbance.
- Social behaviour: for example, lack of cooperation with reasonable requests, withdrawal*, or alterations in communication, mood and/or attitude.

If any of these behaviour changes are present, a healthcare professional who is trained and competent in diagnosing delirium should carry out a clinical assessment to confirm the diagnosis. [recommendation 1.2.1]

[19] If dementia is suspected, refer to further information on the diagnosis, treatment and care of people with dementia in 'Dementia: supporting people with dementia and their carers in health and social care' (NICE clinical guideline 42).

[20] For further information on recognising and responding to acute illness in adults in hospital see 'Acutely ill patients in hospital' (NICE clinical guideline 50).

Interventions to prevent delirium

Ensure that people at risk of delirium are cared for by a team of healthcare professionals who are familiar to the person at risk. Avoid moving people within and between wards or rooms unless absolutely necessary. [recommendation 1.3.1]

Give a tailored multicomponent intervention package:

- Within 24 hours of admission, assess people at risk for clinical factors contributing to delirium.
- Based on the results of this assessment, provide a multicomponent intervention tailored to the person's individual needs and care setting as described in recommendations 1.3.3.1–1.3.3.10. [recommendation 1.3.2]

The tailored multicomponent intervention package should be delivered by a multidisciplinary team trained and competent in delirium prevention. [recommendation 1.3.3]

Diagnosis (specialist clinical assessment)

If indicators of delirium are identified, carry out a clinical assessment based on the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) criteria or short Confusion Assessment Method (short CAM) to confirm the diagnosis. In critical care or in the recovery room after surgery, CAM-ICU should be used. A healthcare professional who is trained and competent in the diagnosis of delirium should carry out the assessment. If there is difficulty distinguishing between the diagnoses of delirium, dementia or delirium superimposed on dementia, treat for delirium first. [recommendation 1.5.1]

Ensure that the diagnosis of delirium is documented both in the person's hospital record and in their primary care health record. [recommendation 1.5.2]

Initial management

In people diagnosed with delirium, identify and manage the possible underlying cause or combination of causes. [recommendation 1.6.1]

Ensure effective communication and reorientation (for example, explaining where the person is, who they are, and what your role is) and provide reassurance for people

diagnosed with delirium. Consider involving family, friends and carers to help with this. Provide a suitable care environment (see recommendation 1.3.1). [recommendation 1.6.2]

Distressed people

If a person with delirium is distressed or considered a risk to themselves or others and verbal and non-verbal de-escalation techniques are ineffective or inappropriate, consider giving short-term (usually for 1 week or less) haloperidol or olanzapine[21]. Start at the lowest clinically appropriate dose and titrate cautiously according to symptoms. [recommendation 1.6.4]

[21] Haloperidol and olanzapine do not have UK marketing authorisation for this indication.

Appendix 3: Suggestions from stakeholder engagement exercise

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
001	Intensive Care Society	Recognition and treatment of patients suffering with delirium who have been critically ill	Approximately 60% of patients who have received intensive care will experience delirium to a greater or lesser extent. This can often last for several months or even years after discharge from Intensive Care or hospital.	The recognition of delirium and similar conditions (such as hallucinations) is poor particularly after the patient has been discharged from hospital into the community. The development of a quality standard for delirium that recognises this and offers support to clinicians and family members encountering patients suffering with post critical care delirium would materially improve the experience of this small but significant group of patients.	NICE Clinical Guideline 83 Rehabilitation after Critical Illness (published 2009) – draws attention to the risk of debilitating delirium after critical illness and of the need to provide rehabilitative psychological as well as physiologic al support to these patients. This Quality standard would complement this CG.
002	British Geriatrics Society	Improved detection rates of delirium.	Delirium is under-detected. There are many reasons for this, but the lack of widespread implementation a readily-usable screening tools is an important factor. Other factors include lack of education, lack of audit, etc.	Detection of delirium matters for many reasons, including: effective treatment, implications for consent/capacity, treatment of distress, communication with patient and families, management of clinical risk (eg. falls), ensuring good hydration, etc.	Multiple papers show under-detection of delirium. For example: Collins N, Blanchard MR, Tookman A, Sampson EL. Detection of delirium in the acute hospital. Age Ageing. 2010 Jan;39(1):131-5.
002	British Geriatrics Society	Practical methods of delirium prevention.	Studies have demonstrated that delirium prevention is effective and reduces costs.	Though delirium prevention is effective, widespread implementation of prevention has not occurred. This might be because some published methods are too difficult to set up in routine care. It might be that NICE can recommend good practice in delirium prevention that can readily be implemented.	NICE guidelines on delirium. A recent UK study which is relevant: Holt R, Young J, Heseltine D. Effectiveness of a multi-

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					component intervention to reduce delirium incidence in elderly care wards. Age Ageing. 2013 Nov;42(6):721-7.
002	British Geriatrics Society	Older patients with delirium should be screened for dementia.	The majority of older people with delirium also have dementia. Thus, delirium provides an opportunity for diagnosing dementia.	Delirium can be seen as a common complication of dementia. Identification of underlying dementia is very important for the quality of life of the patient. It might also directly impact on future delirium risk, if high risk drugs can be stopped or reduced.	Most healthcare providers and advocacy groups are in favour of formal diagnosis of dementia. For example: http://www.nhs.uk/Conditions/dementia-guide/Pages/dementia-early-diagnosis-benefits.aspx
002	British Geriatrics Society	Standardised information leaflets should be available on clinical areas where delirium is common.	Many patients and carers lack basic knowledge on delirium.	Many patients and carers are very concerned about what has happened during an episode of delirium. Some patients report worrying that they are “going mad”. Family members are also often perplexed and frightened by the change in their loved one. Providing information and explanation is an important and neglected area of delirium care. This is especially important at the end of life. Many resources for patients and carers are available, but these are not easy to find for staff in mainstream settings.	Evidence on the delirium experience can be found in these articles: (1) Partridge JS, Martin FC, Harari D, Dhesi JK. The delirium experience: what is the effect on patients, relatives and staff and what can be done to modify this? Int J Geriatr Psychiatry. 2013 Aug;28(8):804-12. (2) O'Malley G, Leonard M, Meagher D, O'Keeffe ST. The delirium experience: a review. J Psychosom Res 2008;65:223-8. (3) Schofield I. A small

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					exploratory study of the reaction of older people to an episode of delirium. J Adv Nurs 1997;25:942-52.
002	British Geriatrics Society	Analgesia and sedation policies for patients with delirium.	There is massive variability in the drugs used for analgesia and agitation. Some evidence suggests that patients with cognitive impairment receive less analgesic drugs than they should. On the other hand, sedative drugs for agitation in patients with delirium are often over-used.	A degree of standardisation of analgesics and sedatives used in patients with delirium would help to reduce underuse, overuse or misuse of these drugs. In themselves such drugs can precipitate or prolong delirium (eg. benzodiazepines).	These surveys showed wide variation in drug use in trainee doctors and also delirium specialists: (1) Morandi A, Davis D, Taylor JK, Bellelli G, Olofsson B, Kreisel S, Teodorczuk A, Kamholz B, Hasemann W, Young J, Agar M, de Rooij SE, Meagher D, Trabucchi M, MacLullich AM. Consensus and variations in opinions on delirium care: a survey of European delirium specialists. Int Psychogeriatr. 2013 Aug 20:1-9. (2) Davis D, MacLullich A. Understanding barriers to delirium care: a multicentre survey of knowledge and attitudes amongst UK junior doctors. Age Ageing. 2009 Sep;38(5):559-63.

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003	SCM-1	Education for staff	Ensuring that staff recognise the signs for delirium and are able to communicate this to patients and relatives	Some of the distress suffered by patients and relatives can be alleviated by helping them understand what delirium is and why they are or may have suffered from it.	Talking to ex patients and relatives via support groups and reading emails resulting from an article in the national media.
003	SCM-1	Normalising hallucinations	A high percentage of patients suffer hallucinations and believe that they are the only ones.	The question “Have you had any hallucinations?” is a vital one. Explaining that hallucinations are NORMAL both to the patient and relative, it is the key to helping explain why they have or are suffering from them.	
003	SCM-1	Giving the relative the tools to help manage delirium	A relative will be confused and upset not understanding why the patient is acting strangely and are not them self.	A relative is more likely to notice unusual behaviour in the patient and can inform the healthcare professional to help determine if Delirium is an issue. Also the relative can be used to comfort the patient and help explain to them what delirium is. A lot of suffers can react better to a familiar face, as sometimes they may not believe or be scared by the health care professional talking to them.	
003	SCM-1	Leaflet/DVD/Websites	Information produced by support groups which are written by ex patients and relatives with non-medical jargon can help improve the understanding of Delirium in simplier terms.	This source of information is vital to help manage Delirium, as it comes from people who have experienced Delirium.	www.icusteps.org –Click on Intensive care guide then Booklet – Delirium and intensive care. www.youtube.com/watch?v=b9yJrz_7pbM – Royal Berks NHS Insight and after care includes covering Hallucinations. www.victoriajhume.wordpress.com - Recent work interviewing ICU

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					patients and their hallucinations and incorporating their stories into songs
003	SCM-1	Follow Up	Many patients will have had Delirium explained to them, but at a time that they are suffering cognitive impairment, resulting in no memory of discussions about Delirium.	Sometimes when a patient has been discharged to a ward or home, they can still be suffering from Delirium. A follow up of some form either them having the chance to attend a follow clinic or providing them with a leaflet at an appropriate time after their hospital stay, can help manage current issues and future problems.	
004	Patient Safety Division	Noted the impact of delirium on risk of falls and mortality			