Worcestershire NHS
Acute Hospitals NHS Trust

Guidelines to prevent and treat delirium in hospital

This guidance does not override the individual responsibility of health professionals to make appropriate decision according to the circumstances of the individual patient in consultation with the patient and /or carer. Health care professionals must be prepared to justify any deviation from this guidance.

Introduction

Delirium can occur in 20%-30% of all elderly patients admitted to hospital and 10%-50% of patients admitted for surgery. Patients who develop delirium have double the risk of mortality, increased risk of falls, pressure ulcers; hospital acquired infection, malnutrition and increased length of stay.

Delirium is often poorly diagnosed and managed, but can be prevented in up to a third of patients. Health care professionals should always be alert to the possibility of delirium when patients present to hospital with 'acute confusion' or become confused during admission. 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.

This clinical guideline describes methods of preventing, diagnosing and managing delirium in accordance with the Mental Capacity Act 2005. It does **not** relate to alcohol or substance misuse. If this is suspected use appropriate clinical guidance.

This guideline is for use by the following staff groups :

This guideline is relevant to all clinical staff involved with older adults entering the Trust.

Lead Clinician(s)

Ruma Dutta	Consultant Geriatrician, WRH
Natalie Beaman	SpR Geriatrics
Donna Kruckow	Lead Nurse Dementia and Older Adults
Joanna Logan	Professional Development Lead
Approved by *Specialty Medcine Divisional Management Board* on:	30th October 2019
Review Date: This is the most current document and is to be used until a revised version is available	30th October 2022

Key amendments to this guideline

Date	Amendment	Approved by:
March 2012	Amendment	R.Dutta
August 2016	Full review and amendment	D.Dutta
October 2016	Full review of document and addition of Delirium Management Pathway (Scottish Delirium Association and Healthcare Improvement Scotland) Approval received for use by Donna Kruckow on 28th September 2016	R.Dutta
December 2017	Sentence added in at the request of the Coroner	

Delirium in Hospital: Guidelines to diagnose treat and prevent.

Introduction

Delirium is a common clinical syndrome characterised by disturbed consciousness, cognitive function or perception. It usually develops over 1-2 days and has a fluctuating course. It is commonly encountered in hospital and complicates at least 10% of all medical admissions. Delirium is a serious condition that is associated with poor outcomes. Up to 60% of patients suffer persistent cognitive impairment following delirium and they are also three times more likely to develop dementia. Therefore it should be prevented and considered as a medical emergency. A multi-disciplinary, holistic approach is key in managing delirium successfully.

A patient may already have delirium when they present to hospital or may develop delirium during hospital admission. Delirium can be hypoactive, hyperactive, or mixed. Patients with hypoactive delirium become withdrawn, quiet and sleepy. Patients with hyperactive delirium have heightened arousal and can be restless, agitated, distressed and aggressive. Be aware that patients with delirium may also have paranoid ideas/delusions. Delirium can fluctuate during the course of the day, and there is evidence from the history, examination and investigations that the delirium is a direct consequence of a general medical condition, drug withdrawal.

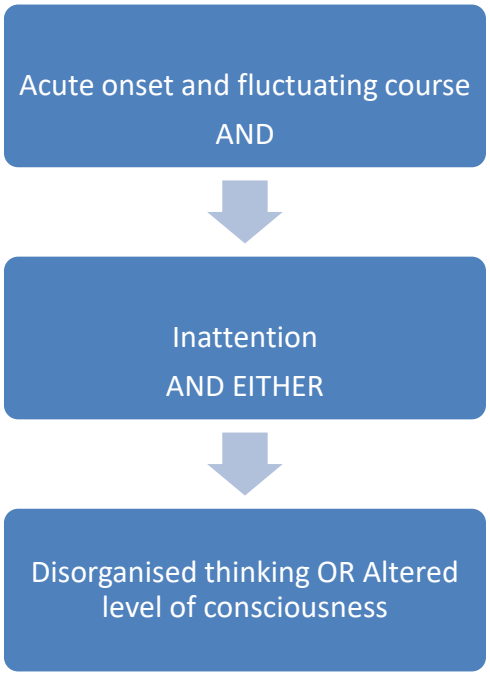
It can be difficult to distinguish between delirium and dementia and some patients may have both. Where there is clinical uncertainty, the patient should be initially managed for delirium.

Older patients and patients with dementia, severe illness or a hip fracture are at higher risk of delirium.

1. **Risk factors:** Risk factors for developing delirium should be recorded in all patients >65

Risk factors for developing delirium	
Old age >70 years	Immobility or falls
Severe illness	Use of physical restraint
Dementia or previous episodes of delirium	Use of bladder catheter
Physical frailty	Iatrogenic events
Depression	Dehydration and malnutrition
Sight or hearing difficulties	Psychoactive medications
Polypharmacy (3 or more medications)	Acute illness
Surgery/anaesthesia (especially hip surgery)	Urinary retention and constipation
History of alcohol misuse	Recent hospital admission
Acute or chronic pain	Use of opioids, benzodiazepines, anticholinergics

2. **Screening**: Screening for delirium can be done by all clinicians quickly and accurately using the Confusion Assessment Method (CAM) screen.



3. **History**:

   History taking from the patient's relative or carer is essential to distinguish between delirium and dementia or other disorders of the brain. This should include:-

   - Details of the onset and course of the confusion.
   - Previous intellectual function (e.g. ability to manage household affairs, pay bills, compliance with medication, use of telephone and transport)
   - Complete mental capacity assessment and if appropriate apply for DOLS
   - Full drug history including non-prescribed drugs and recent drug changes (especially benzodiazepines)
   - Functional status (e.g. activities of daily living)
   - Sources of chronic pain (e.g. arthritis)
   - Mobility and falls
   - Alcohol history
   - History of diet and food intake
   - History of bladder voiding
   - History of bowel movements
   - Previous episodes of acute or chronic confusion
   - Symptoms suggestive of underlying cause (e.g. infection)
   - IQCODE (http://patient.info/doctor/informant-questionnaire-on-cognitive-decline-in-the-elderly-iqcode)
   - Sensory deficits
   - Aids used (e.g. hearing aid, glasses etc.)
   - Pre-admission social circumstances and care package
   - Comorbid illness
   - Mood

4. **Examination:** think PINCHME (see appendix)

   - Look for and act on acute, severe causes such as sepsis, hypoxia, hypoglycaemia and medication intoxication
   - Conscious level (Glasgow Coma Score)
   - Cognitive function (AMT or MSSE for all patient >65 years – see appendix)
   - Look for evidence of alcohol abuse or withdrawal (e.g. tremor)
   - Look for signs of constipation and consider PR
   - Neurological examination (including speech assessment)

- Identify source of infection (lungs, urine, abdomen, skin, wounds)

There is often more than one cause of delirium, but in up to 30% of cases no cause is found

5. Investigations/screening

- FBC; CRP; LFT; U & E's, bone profile, thyroid function, B12 and folate
- Blood glucose
- Chest x-ray
- ECG
- Pulse-oximetry
- Urinalysis
- Blood, sputum, stool culture as appropriate
- CT brain if indication according to local guidelines

6. Medication review

- Avoid abrupt withdrawal of medications that have potential for dependency or likely side effects of withdrawal
- Consider compliance/concordance issues
- Recent changes to medication list or doses
- Review use of high risk factor drugs e.g. opioids, benzodiazepines, antipsychotics, antispasmodics, anti-epileptics, anti-histamines, anti-hypertensives, cortico-steroids, anti-cholinergic, tricyclic antidepressants, digoxin, and anti-parkinsonian medication
- Ensure regular pain relief (use Abbey Pain Scale)
- Consider age appropriateness for all medications
- Consider renal function and other co-morbidities when starting new medications
- Consider nutritional supplements and use of intravenous Pabrinex in malnourished patients

7. Holistic management of delirium

- Treat reversible causes e.g. electrolyte imbalance, sepsis, constipation, pain, urinary retention, dehydration, hypoxia, hypoglycaemia.
- Optimise co-morbid conditions e.g. PD, COPD, DM
- Use Abbey Pain Scale to assess and monitor pain
- Implement "About Me" booklet
- Communicate with patient and carer
- Ensure patient has glasses and hearing aids if needed
- Keep food and fluid diaries
- Remove peripheral devices e.g. cannulas, catheters, oxygen tubing if not required

- Regularly reassure and re-orientate patient – clocks and calendars are useful for this
- Ensure call bell is in the patients reach
- Encourage mobility and engagement in activity
- Relax visiting times and allow family and carer involvement
- Avoid inappropriate inter and intra-ward transfers
- Record diagnosis of delirium on EDS to ensure GP is informed and aware of risk of dementia if an older patient

8. Managing key behaviours

Wandering: Patients who wander require close observation within a safe and reasonably closed environment. The least restrictive option should always be used when acting in the best interests of the patient to keep them safe. In the first instance attempts should be made to identify and remedy any possible cause of agitation - e.g. pain, thirst or need for the toilet. If no source of agitation is found or the cause of the agitation cannot be remedied, the next least restrictive option is to try distracting the patient. Relatives could be encouraged to assist as they will have information about the person which may offer meaningful distraction. The use of restraints or sedation should only be used as a final option. It must be clearly documented in this instance that the intervention was the only option to act in the patients' best interests to prevent harm to themselves or others. If managing delirium well, it is rare that either restraint or sedation is necessary.

Rambling speech: Patients with delirium often exhibit confused and rambling speech; it is usually preferable not to agree with rambling talk, but to adopt one of the following strategies, depending on the circumstance:-

- Tactfully disagree (if the topic is not sensitive).
- Change the subject.
- Acknowledge the feelings expressed but distract from the subject if distressing to the patient

9. Sedation

The use of sedatives should be kept to a minimum or avoided. All sedatives may cause delirium, especially those with anticholinergic side effects. Many elderly patients with delirium have hypoactive delirium (quiet delirium) and do not require sedation. The main aim of drug treatment is to treat distressing or dangerous behavioural disturbance (e.g. agitation and hallucination) which may be seen in those with hyperactive delirium.

A. Drug sedation may be considered in the following circumstances:
   - in order to carry out essential investigations or treatment
   - to prevent patients endangering themselves or others
   - to relieve distress in a highly agitated or hallucinating patient

B. It is essential Mental Capacity has been assessed using MCA 1 and 2 forms if sedation is to be used.
C. The rational for requiring sedation **must be documented.**
D. Use **one drug only**, starting at the lowest possible dose and increasing in increments if necessary after an interval of 30 minutes. *Start low and go slow.*
E. If sedatives are prescribed, the prescription should be reviewed 24 hourly and discontinued as soon as possible.

First choice (excluding Parkinson's disease and Lewy Body Dementia
Haloperidol 0.5 – 1.0 mg orally maximum 2mg/24 hours
Haloperidol 0.5mg IM maximum 2mg/24 hours

Second choice – Risperidone 0.25mg per day

Alternative where antipsychotics are contra-indicated:
Lorazepam 0.5mg - 1 mg orally/IV/IM maximum 2mg/24 hours

10. Training and Education

Delirium e-learning is available on ESR.
Staff working with patients affected by delirium should actively engage with available training.

11. Delirium Management Pathway – Scottish Delirium Association and Healthcare Improvement Scotland

Please see Appendix 2. NB. Triggers for referral to Liaison Psychiatry in our organisation should read Triggers for referral to Mental Health team. Please refer to the Care Act 2014 of England and Wales. We would like to thank the Scottish Delirium Association and Healthcare Improvement Scotland for allowing us to utilise their Delirium Management Pathway.

Appendix 1

Abbreviated Mental Test Score (AMTS)

1. **Age (exact only)**
2. **Date of birth (date and month)**
3. **Time (to nearest hour)**
4. **Year (exact only)**
5. **Name of hospital**
6. **Address for recall at end of test (e.g. 42 West Street)**
7. **Recognition of 2 people (e.g. doctor, nurse)**
8. **Year of World War I**
9. **Name of present Monarch**
10. **Count backwards 20-1**

Memory Aid - PINCHME

Pain

Infection

Nutrition

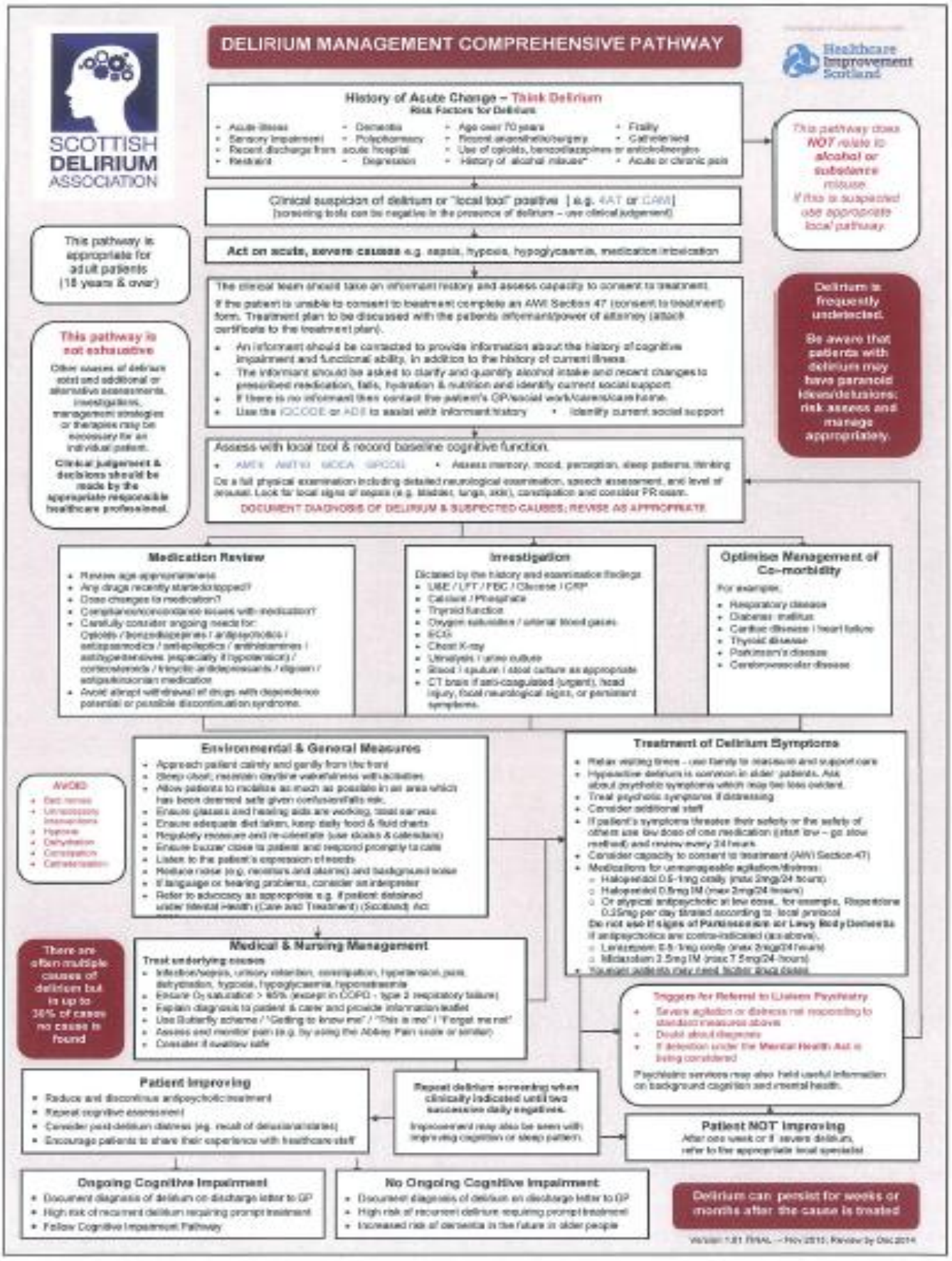
Constipation

Hydration/Hypoxia

Medication

Environmental

Appendix 2 Delirium Management Pathway



Monitoring Tool
This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out?

Who will monitor compliance with the guideline?

Page/ Section of Key Document	**Key control:**	**Checks to be carried out to confirm compliance with the policy:**	**How often the check will be carried out:**	**Responsible for carrying out the check:**	**Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)***	**Frequency of reporting:**
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	All patients >75 admitted to hospital should have cognitive assessment (AMT)	• Training • Data collection & monitoring • Audit	• 1 day a year • 4 days a week • 12 times a year	Dementia Lead Nurse	Dementia Steering Group Directorate Meeting	4 times a year
	Of patients diagnosed with delirium, care pathway initiated	• Audit	• 4 times a year	Dementia Lead Nurse	Dementia Steering Group Directorate Meeting	4 times a year
	All patients diagnosed with delirium should have diagnosis documented on EDS	• Audit	Twice yearly	Dementia Lead Nurse	Dementia Steering Group Directorate Meeting	4 times a year

Monitoring Tool

This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out?

Who will monitor compliance with the guideline?

Standards	Percentage	Clinical Exceptions
All patients >75 admitted to hospital should have cognitive assessment (AMT)	**100%**	**Unconscious or aphasic (this must be documented)**
Of patients diagnosed with delirium, care plan initiated	**100%**	
All patients diagnosed with delirium should have diagnosis documented on EDS	**100%**	

References

1. Bogurdas ST Jr., Desai MM, Williams CS et al. The effects of a targeted multicomponent delirium intervention on post discharge outcomes for hospitalized older adults. *Am J Med* 2003; **114**: 383-90.
2. British Geriatrics Society and Royal College of Physicians Guidelines for the prevention, diagnosis and management of delirium in older people. *Diagnosis and Management of delirium in Older People.* London: RCP, 2006.
3. Innouye SK, Bogurdas ST, Charpentier PA et al. A multicomponent intervention to prevent delirium in hospitalized older patients. *N Eng J Med* 1999; **340**: 669-76.
4. Innouye SK. Predisposing and precipitating factors for delirium in hospitalized older patients. *Dement Geriatr Cogn Disord* 1999; **10**:393-400.
5. National Institution for Clinical Excellence (NICE CG 103) Delirium: Prevention, Diagnosis and Management. July 2010
6. Rockwood K, Cosway S, Carver D et al. The risk of dementia and death after delirium. *Age Aging* 1999; 28: 551-56.
7. Scottish Delirium Association and Healthcare Improvement Scotland, Delirium Management Comprehensive Pathway Version 1.01 November 2013

Contribution List

This key document has been circulated to the following individuals for consultation;

Designation
James France – Consultant A&E
Ruma Dutta – Consultant Geriatrician
Natalie Beaman – Specialist Registrar for Geriatrics
Donna Kruckow – Lead Nurse Dementia
Joanna Logan – Professional Development Lead and Lead for Falls
Sarah Pittaway – Pharmacist for Frailty
Julie Elliott – Occupational Therapy Manager
Sarah Craister – Senior Physiotherapist
Denise Curson – Quality Governance Manager

This key document has been circulated to the chair(s) of the following committee's / groups for comments;

Committee
Falls Operational Group
Medicines Optimisation Committee

Supporting Document 1 - Equality Impact Assessment Tool

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

		Yes/No	Comments
1.	**Does the policy/guidance affect one group less or more favourably than another on the basis of:**		
	• Race		
	• Ethnic origins (including gypsies and travellers)		
	• Nationality		
	• Gender		
	• Culture		
	• Religion or belief		
	• Sexual orientation including lesbian, gay and bisexual people		
	• Age		
2.	**Is there any evidence that some groups are affected differently?**		
3.	**If you have identified potential discrimination, are any exceptions valid, legal and/or justifiable?**		
4.	**Is the impact of the policy/guidance likely to be negative?**		
5.	**If so can the impact be avoided?**		
6.	**What alternatives are there to achieving the policy/guidance without the impact?**		
7.	**Can we reduce the impact by taking different action?**		

If you have identified a potential discriminatory impact of this key document, please refer it to Human Resources, together with any suggestions as to the action required to avoid/reduce this impact.

For advice in respect of answering the above questions, please contact Human Resources.

Supporting Document 2 – Financial Impact Assessment

To be completed by the key document author and attached to key document when submitted to the appropriate committee for consideration and approval.

	Title of document:	Yes/No
1.	Does the implementation of this document require any additional Capital resources	
2.	Does the implementation of this document require additional revenue	
3.	Does the implementation of this document require additional manpower	
4.	Does the implementation of this document release any manpower costs through a change in practice	
5.	Are there additional staff training costs associated with implementing this document which cannot be delivered through current training programmes or allocated training times for staff	
	Other comments:	

If the response to any of the above is yes, please complete a business case and which is signed by your Finance Manager and Directorate Manager for consideration by the Accountable Director before progressing to the relevant committee for approval