Guideline Content

NHSL DELIRIUM GUIDELINES

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Guideline Content

INTRODUCTION:

DELIRIUM GUIDELINES

These guidelines were developed to assist clinicians in acute sites in NHS Lanarkshire in providing consistent and evidence based management in cases of suspected delirium in adults over the age of 18.

More comprehensive guidelines exist and should inform further reading.

- NICE CG103 Delirium
- HIS 'Think Delirium'
- SIGN 157

Patients who present with Stress and Distress in Dementia, Alcohol Withdrawal, Terminal Agitation and Traumatic Brain Injury may present in a similar way to patients with delirium however their management should be different.

Therefore please refer to more specific guidance or to the relevant specialist services for these patient groups:

- Stress and Distress in Dementia (See module 4 of this resource)
- Management of Alcohol Withdrawal (In acute sites GMAWS is utilised)
- Terminal Agitation (Agitation at the end of life)
- Traumatic Brain Injury

What is Delirium?

Delirium is a confusional state which occurs acutely and is fluctuating in nature.

The International Classification of Diseases, version 10 (ICD-10) defines delirium as "An aetiologically non-specific organic cerebral syndrome characterized by **concurrent disturbances of consciousness and attention, perception, thinking, memory, psychomotor behavior, emotion and the sleep-wake schedule. The delirious state is transient and of fluctuating intensity."**

How should we diagnose delirium?

Delirium is a **clinical diagnosis** based on the patients' history and presentation. There is no one test which can be used to diagnose a delirium and even if a cause has not been identified this does not rule out a delirium.

A patient presenting with the symptoms characteristic of delirium should be suspected of having delirium and investigated and managed as such.

There are some useful tests which can help to aid in the diagnosis of delirium such as the 4AT which can be found in Appendix 2.

A collateral history is often the most useful means of reaching a diagnosis of delirium. The Single Question to Identify Delirium (SQID) question "Do you think (name of patient) has been more confused lately?" is an easy and reliable way to identify change and to keep families and carers involved.

A significant proportion of patients with delirium can present with psychotic or affective symptoms, this does not mean they have a primary psychiatric disorder, and they should be investigated and managed for delirium.

Delirium can be subcategorized into hyperactive and hypoactive delirium.

Hyperactive delirium may present with abnormalities of perception such as visual, auditory or tactile hallucinations. This may present with the person looking around the room or appearing frightened. The person may have a heightened state of arousal and may shout or appear threatening or aggressive in a way that is out of character for them. The person may appear restless with pacing or wandering.

Hypoactive delirium is more commonly overlooked and may present with a lack of interest in the surrounding environment and poor oral intake. The person may appear drowsy and their concentration may be poor with difficulty interacting and understanding questions and speech that may be incoherent.

Delirium is a serious condition associated with poor outcomes. However steps can be taken to prevent and treat it when it occurs. Treating any identified cause of delirium is essential.

The duration of delirium is variable and the degree of severity ranges from mild to very severe.

Up to 30% of cases may have no identifiable cause **and** ***normal investigation results do not exclude Delirium*****.**

The symptoms of a Delirium outlast the initial trigger in around 20% of cases - these symptoms can take up to six months to resolve.

What are the risk factors for developing a delirium?

Risk factors include:

- Being over 70 years old
- Past or present cognitive impairment
- Frailty
- History of delirium, stroke, neurological disease or falls
- Severe illness
- Injury or recent surgery, especially hip fracture
- Substance misuse; psychoactive drug use and alcohol use
- Polypharmacy (>4 medications) and high risk medications (anticholinergic, opiates, benzodiazepines) **See Appendix 1**

- Multiple ward moves
- Sensory impairment

Therefore many patients on acute sites will be at risk of developing a delirium.

Delirium may be present in up to 20% of acute general medical patients. It affects up to 50% of those who have hip fractures and up to 75% of those in intensive care.

What can we do when a patient is at risk of delirium?

When we recognize that a patient is at risk of developing a delirium there are useful steps which we can take to reduce this risk:

- Ensuring the person is **well hydrated and eating well**
  Often those with pre-existing cognitive impairment will need prompting to eat and drink. This patient group may have difficulties ordering meals or making choices about what to eat and drink. If making a choice is too challenging for the person try to present them with food and drink and provide regular prompts (family and friends may be able to give advice of options they would most enjoy.) If the person has **dentures** required to eat then ensure these are available to them and that they fit.
- Ensure that any **sensory deficits** are reduced by making sure **glasses** and **hearing aids** are utilised
- Encourage **mobilisation** wherever possible. There is evidence that regular movement can reduce the incidence of delirium in at risk groups
- Promote **orientation** using **clocks/calendar/personal items** by the patient's bedside and **avoid multiple ward moves**
- Promote **good sleep** patterns with a quiet and low lit ward environment where possible and **avoid moves between wards at night time**
- Assess for **pain** and manage **pain** appropriately
- Regulate **bladder and bowel function** – prevent and manage constipation and urinary retention
- Identify if there is a history of **alcohol excess** and manage this appropriately
- Reduce **polypharmacy** by reviewing the appropriateness of current medications, particularly those likely to precipitate delirium. As part of this review also consider whether reducing or stopping a medication may precipitate delirium or a relapse of the condition being treated. Avoid starting medications likely to worsen delirium unless there is a strong clinical indication.

We can also use **simple assessment tools** to establish a baseline and then re-test at regular intervals or when the patient's clinical presentation changes. Assessment tools such as the 4AT can be found in Appendix 2.

How should we manage delirium?

When treating delirium it is important to investigate and treat any underlying cause (bearing in mind that there is often more than one cause.) The TIME checklist Appendix 3 is a useful resource for suggesting and recording initial investigations. This can be printed and placed in the patients' notes and then regularly reviewed.

The **practical steps noted above** which can reduce the risk of delirium should also be taken to try and manage delirium.

In addition there are other **non-pharmacological steps** which can be utilised such as:

- Providing information to family regarding delirium
- Completion of "Getting to Know me" documents by family/friends and staff using this information to inform care and meaningful interactions with the patient.
- Adopting a flexible approach to visiting, particularly during periods when the patient is distressed. If this is not possible then facilitating phone calls or video calls with family may be helpful.
- Considering one to one nursing care.
- Ensuring the patient is not experiencing sensory deprivation (glasses, dentures and hearing aids) as this may worsen distress.
- Helping to orientate the patient by providing a clock and calendar, or talking about recent events if they are able. Orientating can also be done verbally or with signs e.g on their door, name badges, saying "Hi John, it's Nancy", or by telling them something you know about them to cue that you know them e.g. "the last time I saw you, you were telling me about your daughter, Anna"
- Placing familiar objects in the room (photographs, cushions and radio) can help reduce distress.
- Reducing stimulation in their environment, e.g. reducing noise, light and the number of people coming in and out of the room.
- Try to identify why the patient may be responding in a certain way and explore if there are non-pharmacological steps which can help them, for example, if a patient is calling out or seems upset, do they need comfort such as someone holding their hand, rubbing their arm or back, hand massage, or to hear soothing words like "you're ok" "it's all right", "you're safe" etc

What are the pharmacological management options?

If the above practical steps have been taken and a patient is distressed and/or presenting a significant risk to themselves or others then pharmacological treatments can be considered.

Any medications present a risk of side effects and the decision on whether to prescribe should be balanced considering these risks versus the potential benefits.

Decisions on whether to prescribe should be discussed with the patient or next of kin/guardian/power of attorney wherever possible. This is particularly important as some of the drugs noted here would be prescribed off-license.

OPTION 1: HALOPERIDOL

The first line treatment for delirium is Haloperidol; however there are several contra-indications: **Lewy Body Dementia/Parkinson's Disease/ Prolonged QTc interval/already prescribed medications which prolong the QTc interval.**

For all patients for whom a prescription of Haloperidol is being considered:

THINK ARRYTHMIA

A **baseline ECG** should be conducted before giving Haloperidol wherever possible.
QTc interval should be monitored as **haloperidol can prolong the QTc and this can lead to torsade de pointes.** Normal limits for QTc are generally accepted as <440ms in men, and <470ms in women.

Haloperidol should not be used alongside other drugs that prolong QTc.

Other risk factors for QTc prolongation include:

- Bradycardia
- Electrolyte disturbance such as Hypokalaemia/Hypomagnesaemia/Hypocalcaemia
- Cardiac disease
- Family history of long QTc
- Prolonged alcohol exposure

The dose of Haloperidol should take into consideration the patient's age and co-morbidities.

The recommended **oral dose would be 0.5mg-1mg of Haloperidol to a maximum of 2mg/24 hours** (There should be at least 4 hours between each dose).
The lower end of this dose range should be used in frail or elderly patients.

If a patient is able to take oral medication then this should be offered. The administration of intramuscular (IM) medication should only be considered if there are significant risks to the patient and/or others.

If IM medication is being used then particular consideration should be given to deciding under what legal framework this decision is being made. More information is available regarding this in the section below "*What are the legal considerations regarding care and the use of medications (including IM administration)?"*

The recommended **IM dose would be 0.5mg of Haloperidol to a maximum of 2mg/24 hours** (There should be at least 4 hours between each dose)

Please note

Due to concerns about QTc the ***use of haloperidol is contraindicated in combination with other drugs that prolong the QTc interval.*** *Consequently where possible such combinations should be avoided (see other options below).*

In the event that clinical circumstances make the use of such combinations unavoidable and other options have been considered;

- *Ensure the rationale for treatment is clearly documented and reflected in the patient's individualised treatment plan.*
- *Ensure modifiable risk factors for QTc prolongation are minimised e.g. electrolyte abnormalities (hypokalaemia, hypomagnesaemia, hypocalcaemia), discontinue other drugs known to prolong QTc if possible, avoid extreme physical exertion.*
- *Consider populations that are at higher risk of QTc prolongation e.g. women, children, elderly, those with known cardiac disease, known substance misusers, extremes of weight.*
- *Consider increased monitoring e.g. U&Es, LFTs, ECG monitoring.*

OPTION 2: RISPERIDONE

If Haloperidol is contraindicated due to concerns regarding QTc then consider:
Oral Risperidone 250 to 500 micrograms daily (up to a maximum of 1mg in 24 hours). The lower end of this dose range should be used in frail or elderly patients. As Risperidone is not licensed for use in delirium a discussion should be had with the *patient*/*NOK/POA/WG* and clearly documented.

Note: If the person is already on an antipsychotic medication it may be appropriate for this to be increased rather than adding different types of antipsychotic. Contact Liaison Psychiatry or out of hours Duty Psychiatrist for advice regarding this.

OPTION 3: BENZODIAZEPINES

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If antipsychotics are contraindicated then it is reasonable to consider the use of benzodiazepines. However benzodiazepines can increase confusion and therefore make delirium worse. There is also a risk of **paradoxical agitation** with use of benzodiazepines. These risks should be carefully considered against any potential benefits in terms of reducing risks and/or distress.

If using a benzodiazepine then oral **Lorazepam at a dose of 0.5-1mg (max 2 mg/24 hours**) should be offered in the first instance.

Only if the oral route is not possible and there are significant risks to the patient and/or others should the use of **IM Midazolam at a dose of 2.5mg (max 7.5mg/24 hours)** be considered.

IN PARKINSONS/LEWY BODY DEMENTIA

For management of psychotic symptoms of delirium in patients with Parkinson's and DLB Quetiapine is recommended by NICE. Please discuss such patients with Liaison Psychiatry or out of hours with the Duty Psychiatrist.

If there is no clinical improvement then review the management plan and seek psychiatric advice if required.

What are the legal considerations regarding care and the use of medications (including IM administration)?

In any healthcare setting consideration should be given as to whether a patient has the capacity to make decisions about their care. Capacity is decision specific and should be regularly reviewed when making decisions with patients about their ongoing care.

If a patient does not have the capacity to consent to parts of their medical care and treatment then a Section 47 certificate (under Part 5 of the Adults with Incapacity Act) and accompanying treatment plan should be completed. If the person has a Power of Attorney or Welfare Guardian then they should be involved in decisions about the person's care. It is also good practice to involve the Next of Kin in care decisions, particularly if they are aware of what the persons' wishes would have been. If a patient lacks the capacity to make decisions about medications and compliance is a concern, use of the Covert Medication Pathway can be considered.

The Mental Health (Care and Treatment) (Scotland) Act 2003 must only be used if the criteria are met. Any medical practitioner of FY2 or above can complete an Emergency Detention Certificate. Use of the Mental Health Act should be considered for patients who are consistently trying to leave hospital or who have required the use of restraint or IM medication in order to manage significant risks to themselves or to others. Further advice can be sought from Liaison Psychiatry services in working hours or the Duty Psychiatrist out of hours. Liaison Psychiatry should be made aware of any EDCs put in place as soon as possible so that these can be reviewed timeously.

In an acute situation where there are significant risks to the safety of the patient or to others restraint or IM medication can be given under Common Law and the AWI Act. However in these instances consideration should, when practicable, be given as to whether this person meets the criteria for detention under the Mental Health Act.

What should we do next?

Delirium should be regularly reassessed and the causes treated.

A referral to Liaison Psychiatry via the firstport referral system should be made if:

- There is doubt about diagnosis
- There is severe agitation or distress unresponsive to standard measures above
- Consideration needs to be given to use of the Mental Health Act

Document the diagnosis of Delirium on the Immediate Discharge Letter (IDL).

If there are ongoing symptoms at the point of discharge then appropriate functional and cognitive assessment should be conducted prior to discharge.

As discussed above symptoms of delirium can persist for up to 6 months and some cognitive deficits may never fully resolve. A diagnosis of dementia should not usually be made within 6 months of a delirium.

Patients and families should be advised that symptoms may persist for up to 6 months. Where symptoms continue for longer, or in the event of marked deterioration, they may wish to contact the patient's GP Practice to discuss whether referral to the local Community Mental Health Team would be appropriate.

If there are significant concerns about cognition at the point of discharge or if the background history suggests that the patient may have been displaying signs of dementia prior to the admission then referral directly to Community Mental Health Team should be considered. If such a referral is made then it would be expected to include information such as relevant Cognitive Assessments (e.g. MMSE, MOCA or ACE III) and details of the next of kin if the person may have difficulty attending appointments themselves.

If medications have been commenced due to delirium these should be reviewed and preferably stopped prior to discharge as patients should not continue on medications for delirium in the long term. If these continue to be indicated then follow up arrangements should be put in place by the team who have prescribed it to ensure that medications are reduced and stopped as soon as possible.

Patients who have suffered from a Delirium should be advised not to drive until their symptoms have fully resolved and they feel safe to drive. If at the point of discharge you are concerned regarding the patient's fitness to drive and/or their ability to recognise this then you should refer to DVLA guidance or contact the DVLA for further advice. They can be referred for a formal driving assessment at the SMART Centre in Edinburgh. If the patient has displayed psychotic symptoms or has ongoing cognitive deficits then you should refer to the specific DVLA guidance available and provide the patient with the appropriate advice (see https://www.bgs.org.uk/sites/default/files/content/resources/files/2019-01-11/Driving%20with%20dementia%20or%20MCI%20-%20Consensus%20guidelines%20for%20clinicians%2011.1.19.pdf).

Appendix 1: Drugs which increase risk of Delirium

Drugs which increase the risk of delirium include:
Benzodiazepines
Opiates
Antiparkinsonian medications
NSAIDs
Anticonvulsant medications
Corticosteroids (e.g.Prednisolone)
Antihistamines (especially first generation e.g. Hydroxyzine)
Antispasmodics and antiemetics
Fluoroquinolone antibiotics (e.g. Ciprofloxacin)
Tricyclic antidepressants (e.g. Amitriptyline)
Antiarrythmic medications (e.g. Digoxin – risk of toxicity)
Antihypertensive (e.g. Beta blockers)
Diuretics (e.g. Furosemide)
Theophylline
Lithium

Medications which have anticholinergic properties are a particular risk in terms of causing delirium. A table of commonly prescribed medications which may have anticholinergic properties can be found here as well as suggestions for alternate medications with less anticholinergic burden.

There are useful rating scales online which can be used to assess anticholinergic burden of certain medications.

Some commonly used over the counter drugs can also increase the risk of delirium:
Diphenhydramine (e.g. Benylin®)
Chlorphenamine (e.g. Piriton®)
Promethazine (e.g. Phenergan®, Night Nurse®)
Antidiarrheal drugs (containing belladonna)
Irritable bowel syndrome drugs containing hyoscine (e.g. Buscopan®)

Appendix 2: 4AT Assessment Tool

4AT repeat assessment tool

Tester: Date: Time:				

[1] Alertness				
This includes patients who may be markedly drowsy (eg. difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. **Ask the patient to state their name and address to assist rating.**				
Normal (fully alert, but not agitated, throughout assessment)	0	0	0	0
Mild sleepiness for <10 seconds after waking, then normal	0	0	0	0
Clearly abnormal	4	4	4	4

[2] AMT4				
Age, date of birth, place (name of the hospital or building), current year.				
No mistakes	0	0	0	0
1 mistake	1	1	1	1
2 or more mistakes/untestable	2	2	2	2

[3] Attention				
Ask the patient: **"Please tell me the months of the year in backwards order, starting at December."** To assist initial understanding one prompt of **"What is the month before December?"** is permitted.				
Achieves 7 months or more correctly	0	0	0	0
Starts but scores < 7 months / refuses to start	1	1	1	1
Untestable (cannot start because unwell, drowsy, inattentive)	2	2	2	2

[4] Acute change or fluctuating course				
Evidence of significant change or fluctuation in: alertness, cognition, other mental function (eg. paranoia, hallucinations) arising over the last 2 weeks and still evident in the last 24 hours.				
No	0	0	0	0
Yes	4	4	4	4

4AT Score
4 or above: possible delirium +/- cognitive impairment
1-3: possible cognitive impairment
0: delirium or severe cognitive impairment unlikely
(but delirium still possible if [4] information incomplete)

Total			

v3.1 Testing Sep 2014

Appendix 3: TIME Checklist

Name:
Date of birth:
CHI number:

Date: / /
Zero time: :

Practitioner name: _____ **Practitioner signature:** _____

Designation: _____

	Initiate TIME within 2 hours (initial and write time of completion)	**Assessed/ sent**	**Results seen**	**Abnormality found**
T	**Think exclude and treat possible triggers**			
	NEWS (think sepsis six)			
	Blood glucose			
	Medication history (identify new medications/change of dose/medication recently stopped)			
	Pain review (Abbey Pain Scale)			
	Assess for urinary retention			
	Assess for constipation			
I	**Investigate and intervene to correct underlying causes**			
	Assess Hydration and start fluid balance chart			
	Bloods (FBC, U&E, Ca, LFTs, CRP, Mg, Glucose)			
	Look for symptoms/signs of infection (skin, chest, urine, CNS) and perform appropriate cultures/imaging depending on clinical assessment (see sepsis six)			
	ECG (ACS)			
M	**Management Plan**			**Completed**
	Initiate treatment of ALL underlying causes found above			
E	**Engage and Explore** (complete within 2 hours or if family/carer not present within 24 hours)			
	Engage with patient/family/carer – explore if this is usual behaviour. Ask: How would you like to be involved?			
	Explain diagnosis of delirium to patient and family/carers (use delirium leaflet)			
	Document diagnosis of delirium			

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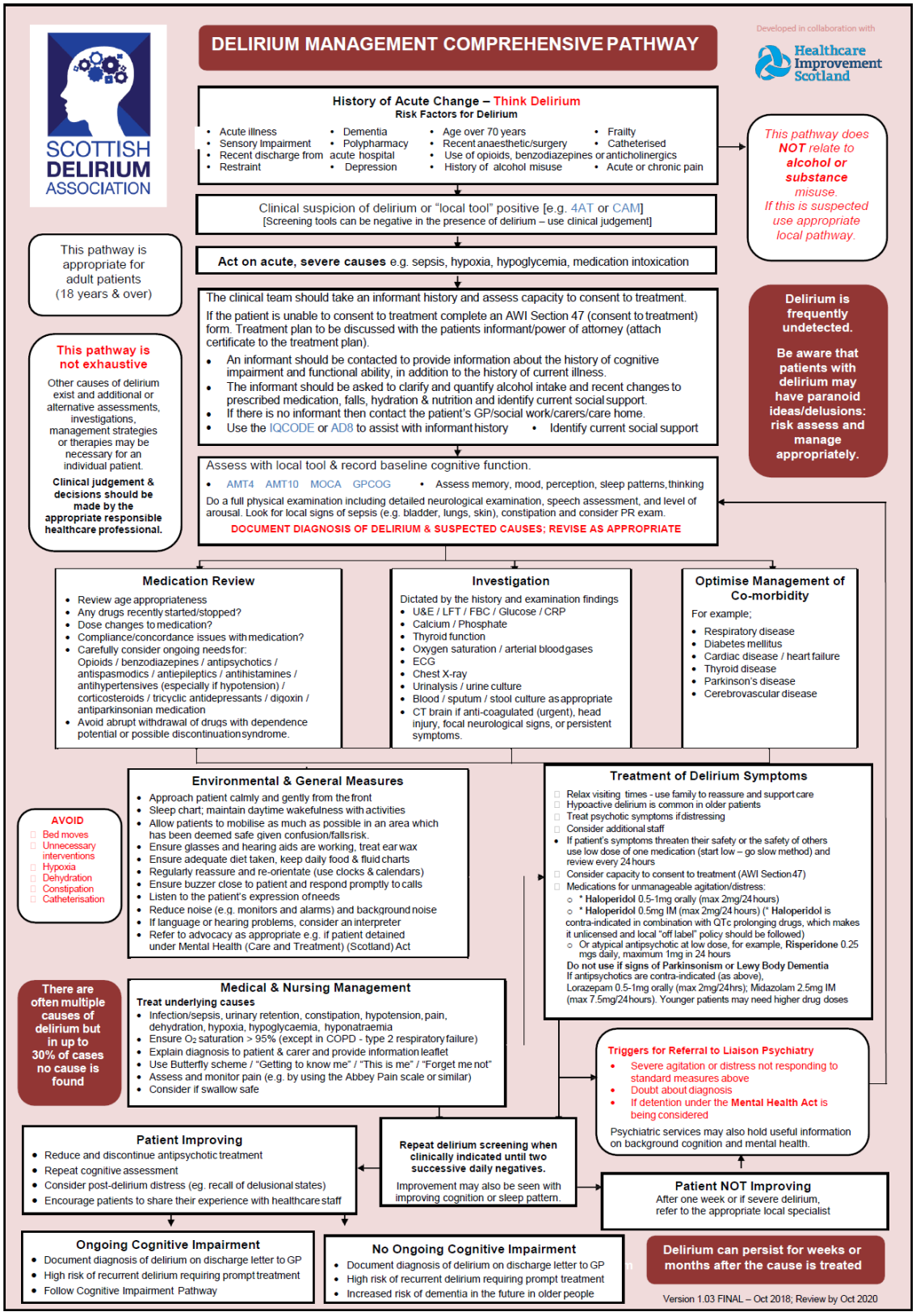
Appendix 4: SDA Comprehensive Delirium Pathway



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