Reference Number: FOI202526/089
From: Other

Date: 02 June 2025

Subject: Management of post-operative delirium after cardiac surgery

Please could you provide the following information:

Q1 An (electronic) copy of your post-operative delirium (POD) management guideline/pathway.

A1 See attached - *LHCH Delirium Risk Assessment and Management Tool - Critical Care & LHCH Delirium Risk Assessment and Management Tool - Ward Areas*

Q2 Your first line drug treatment(s) for POD after cardiac surgery.

A2 Haloperidol as needed

Q3 Your second line drug treatment(s) for POD after cardiac surgery.

A3 Clonidine infusion

Q4 Your third line drug treatment(s) for POD after cardiac surgery.

A4 Quetiapine or risperidone depending on prescriber preference

Q5 Do you ever use clonidine for POD after cardiac surgery?

A5 Yes, as per A3

Q6 Do you ever use dexmedetomidine for POD after cardiac surgery?

A6 Yes

Q7 If you use melatonin for treatment of POD after cardiac surgery what is the:
a. Dose
b. Frequency of dosing
c. Usual treatment duration
d. Formulary status

A7 Up to 8mg at night. Usually until discharge from Critical Care

Q8 If you do not use melatonin for the treatment of POD after cardiac surgery what is the reason for this?
E.g. has never been considered for addition to the formulary,
Or, has been considered but classified non-formulary due to lack of evidence of efficacy.

A8 Not applicable – as per A7

Q9 If you use melatonin for the PREVENTION of POD in cardiac surgery what is the:
a. Dose
b. Frequency of dosing
c. Usual course length
d. Formulary status
e. If the day of surgery is 'Day 0' on which day does the preventative course commence?

A9 Information not held – we do not use melatonin for the prevention of POD in cardiac surgery

Q10 If you do not use melatonin for the prevention of POD in cardiac surgery what is the reason for this?

A10 Unaware of any strong evidence for its use

Q11 Please list the names of any other medicines you use for the PREVENTION of POD in cardiac surgery.

A11 Not applicable – as per A9

Q12 Please provide the contact email address for your Trust's Medication Safety Officer

A12 cassie.cordner@lhch.nhs.uk

Delirium – CRITICAL CARE AREA ONLY - Risk Assessment and Management Tool

Policy

For completion by Author			
Author(s) Name and Title:	Dr F Faraz, J Stratton - Matron		
Scope:	Trust Wide	Classification:	Clinical
Version Number:	3.0	Review Date:	10/06/2025
Replaces:	Delirium Guideline – Version 2.0		
To be read in conjunction with the following documents:	Trips, Spills and Falls policy Enteral Feeding and Administration Safeguarding Vulnerable Adults Enhanced Level of Observational Care Managing Violence and Aggression and Anti –Social Behaviour Hand Control Mittens Policy		
Document for public display:	Yes		
Executive Lead	Mr Manoj Kuduvalli		

For completion by Approving Committee				
Equality Impact Analysis Completed:			No	
Endorsement Completed:		Yes	Record of Changes	Yes
Authorised by:	Quality Patient and Family Experience Committee		Authorisation date:	10/06/2022

For completion by Document Control					
Unique ID No:	D25DC200	Issue Status:	Approved	Issue Date:	17/02/2025
After this document is withdrawn from use it must be kept in archive for the lifetime of the Trust, plus 6 years.					
Archive:	Document Control		Date Added to Archive:		
Officer responsible for Archive:		Document Control Co-ordinator			

Contents

Policy Statement

Delirium is a complex ***neuropsychiatric syndrome*** marked by an acute onset, fluctuating course, altered level of consciousness, inattention, and disorganized thinking. It usually lasts for one to seven days , although it can persist for days or weeks.

Delirium can be thought of as ***acute brain failure***, and may in fact indicate that the person's brain is vulnerable and has diminishing capacity.

Delirium can signal a medical emergency, and its consequences may include

1. permanent neurological effects
2. the development or worsening of dementia
3. Functional and physical decline
4. transfer to a long-term care facility
5. increased risk of death

Delirium develops as a result of a combination of predisposing factors (e.g., older age, frailty, cognitive impairment) that create vulnerability, and a variety of precipitating factors (e.g., illness, surgery, immobility, noisy environment).

An older person with multiple morbidities and dementia is at high risk for developing delirium. In this case, even small changes in the person's environment or medical condition may trigger the onset of delirium, whereas a healthy adult may only develop delirium after being exposed to several precipitating risk factors.

This policy describes methods of preventing, identifying, diagnosing and treating delirium.

Patients with delirium are potentially vulnerable to injury and harm during their admission. Therefore this clinical guideline should be read in conjunction with the Safe Guarding Vulnerable Adult policy, Hand Control Mittens Policy and the LHCH policy on Slips, Trips and Falls.

This policy does not cover children and young people (younger than 18 years), people receiving end-of-life care, or people with intoxication and/or withdrawing from drugs or alcohol, and people with delirium associated with these states.

Clinical Features of Delirium

Delirium is reversible and temporary impairment of brain function. It is a syndrome, not a disease and has many causes all of which result in a similar patter of signs and symptoms. The essential feature is a disturbance of **attention or awareness** that is accompanied by a change in baseline cognition that cannot be explained by pre-existing disorder.

Signs and Symptoms

Disturbances in consciousness:

Consciousness is described as being aware of internal and external stimuli. For consciousness, a normal level of arousal is required but not sufficient. It also requires to be able to give appropriate responses to stimuli. Disturbance in consciousness is a cardinal feature of delirium, but it is difficult to describe and examine it. In reality, consciousness shows a continuum from hyper alertness/hyperarousal to coma. In delirium patients may not be woken up fully and can fall asleep easily, or there could be increased attention with excessive alertness and startle reaction.

Reduced ability to direct, focus, sustain and shift attention:

Impairment in attention is the most characteristic feature of delirium. This can be assessed by observing the ability of patient following the instruction during the medical examination/interview. Patients have difficulty focusing on the stimulus, and the question/stimulus needs to be repeated in order to get a response. The ability of attention can be objectively assessed by some bedside tests.

Disorientation:

Impairment in orientation is the most common sign of delirium.
Disorientation may occur in time (not knowing what time of day, day of week, month, season or year), place (not knowing where one is) or person (not knowing who one is). The earliest and most common impairment is seen in temporal orientation. Disorientation to person is very rare and indicates the seriousness of the condition.

Disorganized thinking and speech:

In most delirious patients, the clarity, consistency and the speed of speech get impaired. There could be inconsistent flow of thoughts with loosening of associations between the words, sentences and topics. This is known as disorganized thinking which is observed as a difficulty to understand and inconsistent speech.

Memory disturbances:

Short-term memory problems and difficulties with remembering are common problems in delirium. However, these impairments are temporary and unlike in dementia are due to fluctuations in consciousness and disturbance in attention. Registration of newly learned knowledge in the long-term memory requires high-level concentration which is often impaired in delirium. Recalling old memories does not require concentration which is generally not effected in delirium.

Sleep-wake disturbances:

Due to impairment of circadian sleep cycle, there are sleep-wake rhythm disturbances in most patients with excessive sleepiness during the daytime and increased alertness

at night. Decreased or broken sleep at night could be the first sign of delirium in many patients.

Perceptual disturbances:
Hallucinations, misperceptions, illusions and delusions are reported to occur in at least 40% of cases of delirium. Perceptual disturbances are usually visual but may occur in other modalities. Patients might, for example, misperceive the blood pressure device that a nurse is using as a weapon or a water pipe in the room as snake or folds in bed as various animals. Hallucinations are perceptions without external stimuli. Hallucinations are usually visual, ranging from dreamlike experiences to terrifying visions.

Emotional disturbances:
Emotional changes can last long which can be reported as personality change by others or can be intermittent changes with lability.

Thought content:
There are often **persecutory delusions** in thought content (they will kill me; they will slaughter me). Misperceptions (a nurse preparing a medicine can be perceived as if he/she is trying to poison the patient) can lead to these thoughts. Delusions are short-lived and temporary and are not considered as fixed delusions.

Altered psychomotor activity:
Patients with hyperactive delirium show increased alertness and hypervigilance. They can be agitated, disruptive and aggressive. On the other hand, hypoactive ones are sleepy with marked motionlessness and retardation.

Other features:
Higher integrative functions are affected; the result is a reduced ability to plan and solve problems or disrupted sequencing or praxis of actions (e.g. rising from a bed or walking which can lead to injury or falls). Disturbances can also occur in visuospatial abilities and in writing.

1. Roles and Responsibilities

Chief Executive has a duty to ensure that NICE Clinical Guideline 103 is adhered to within the Trust.

The Director of Nursing and Medical Director have a duty to ensure appropriate policy and systems are in place to care for patients who may be at risk delirium or are delirious.

All Managers have a duty to ensure this policy is adhered to in respect of assessing, identifying and treating all patients who may be at risk of delirium or are delirious and using the guidance and documents set out within this policy.

All medical staff have a duty to ensure the correct assessment, diagnosis and treatments are instigated. Assessment and management of the patient should involve completion of the Delirium Assessment and Management Tool which ensures formal diagnosis with a validated tool, screening for reversible causes, delivery of tailored interventions and reservation of pharmacological intervention for patients in distress or deemed a risk to themselves or others. The diagnosis of delirium, when made, must be recorded in the Problem List on EPR to ensure communication to the patient's GP.

All nursing staff are responsible for ensuring that the Delirium Risk Assessment section of the Risk Assessment document is completed when the patient is admitted to the Trust.

For Ward Staff:

There are 3 areas within EPR for ward staff to document their risk assessment findings:

- Delirium Risk Assessment (Nursing Admission)
- Delirium parameter (Assessment and Care 2016)
- Delirium Assessment and Management Tool

Where patients are found to be at risk of delirium or suffering from delirium, all nursing staff have a duty to ensure that a Delirium Risk Assessment (Nursing Admission and Risk Assessment document) is completed within 6 hours of admission, and the Delirium parameter within the Assessment and Care flowsheets completed twice per day. If a patient has an altered mental state/confused or delirious or has a history of delirium, then Ward staff are also required to complete the Delirium Assessment and Management Tool once a day.

Where completion of the Delirium Risk Assessment and Delirium Assessment and Management Tool identifies the presence of delirium, they must take action, or ensure that this is communicated to medical staff for action if appropriate.

For Critical Care Staff:

Nursing staff within the Critical Care Areas have a duty to perform a formal CAM-ICU assessment for delirium twice daily basis, ideally at the start of the morning and evening shifts. This assessment should be performed within the Delirium Tool. Precipitants of delirium will also be screened for within this tool and tailored interventions will be recommended. Where the patient is found to be positive for delirium, the medical team should be informed.

The Safeguarding Lead has a duty to complete a Deprivation of Liberty Safeguard assessment and application for authorisation, where required. All clinicians have a responsibility to refer patients for review where there are concerns that safeguards should be applied for, in line with the Deprivation of Liberty Safeguards Framework.

Pharmacists have a responsibility to ensure that, on discharge, any anti-psychotic medication that the patient was not admitted on is flagged as a new medication and that there is a documented plan for weaning, cessation or continuation of the drug depending upon the individual case. Where there is no evidence of clear plan this should be raised with the medical team caring for the patient, and unless the drugs is stopped a plan should be put in place.

The specific duties and responsibilities outlined in the policy apply Trust-wide.

Temporary or Agency Staff, Students or any health care worker will be expected to comply with the requirements of all Trust policies applicable to their area of operation.

2. Document Control Standards

All Medical, Nursing and allied healthcare staff who deliver patient care must be aware of this policy and use it when applicable.

3. Procedure

3.1 Assessment

Patients who are known to have dementia at pre-admission must be referred to the Safe Guarding Vulnerable Adults team lead in order the appropriate care can be arranged prior to admission. If delirium is suspected at pre-admission by doctors or clinical nurse practitioners after completion of the Delirium Risk Assessment, the consultant for that patient should be informed, Patient Experience Matron (complex patients) and, Safeguarding Vulnerable Adult lead.

Given the nature of cardiac and respiratory disease with respect to potentially severe illness, and the age group that these diseases effect the majority of patients at LHCH are deemed at risk of developing delirium. Patients in Critical Care area which include, Intensive Care Unit (ICU) and the Post-Operative Critical Care Unit (POCCU) and Coronary Care Unit (CCU) are at highest risk and staff in these areas must be vigilant for the signs and symptoms of delirium.

3.2 Indicators of Increased Risk of Delirium

- Age over 65
- Pre-existing diagnosed memory or understanding issues
- Dementia
- Fractured hip (current)
- Patient considered to be seriously ill (admission to critical care/CCU)

Where one of the above criteria is present, the patient is deemed at risk of developing delirium during their hospital stay. The second part of the Delirium Risk Assessment comprises open questions directed to the patient and any family or carers present during the admission process. Indicators include:

- Impaired cognitive function: e.g. reduced concentration, slow responses, confusion
- Altered perception: e.g. visual or auditory hallucinations
- Reduced physical function: e.g. reduced mobility, reduced movement, restlessness, agitation, changes in appetite, sleep disturbance
- Altered social behaviour: e.g. lack of cooperation with reasonable requests, withdrawal, or alterations in communication, mood and/or attitude

If the patient answers positively to any of the above indicators on admission, or at any other time during their stay at LHCH, this should be highlighted to a healthcare professional trained to assess and diagnose delirium as soon as possible. Further assessment using the Delirium Assessment and Management Tool on EPR should be performed.

3.3 Prevention of Delirium

Where patients are deemed at risk of delirium, but without any current indicators, steps should be taken to reduce the risk of delirium developing. This should be achieved by use of the Delirium Assessment and Management Tool, which will guide implementation of a group of targeted interventions that have been found to reduce the risk of Delirium.

Nursing staff will observe twice a day for both critical care and ward areas, all patients for changes or fluctuations in usual behaviour. The patient, a carer or a relative may report these. If any of these behavioural changes are present, a healthcare professional trained in the diagnosis of delirium should carry out a formal clinical assessment to confirm the diagnosis using the Delirium Assessment and Management Tool on EPR

A tailored intervention package to address potential sources of delirium should be delivered by the multidisciplinary team. The Delirium Assessment and Management Tool should be completed once per day and if any of the factors contributing to development of delirium are found to be present, a summary of tailored interventions that should be offered will be provided within the flowsheet and should be acted upon.

The Delirium tailored Invention package addresses the following issues and, where present, provides tailored advice:

- **Cognition and orientation:**
    - Re-orientate in place and time through conversation, use of 24 hour clocks and calendar
    - Appropriate lighting for time of day
    - Avoid moving patient between rooms or wards
    - Consider use of familiar staff if able
    - Talk with patient to encourage re-orientation
    - Ear plugs and Eye masks if requested

- **Hydration:**

    - Ensure adequate access to fluids, assess reason for dehydration, consider whether physical assistance required, or IV/NG supplementation needed and seek medical review if required

- **Constipation:**
    - Consider addition or escalation of use of laxatives – seek medical review if required

- **Oxygenation:**
    - Assess for hypoxia, treat with supplemental oxygen as appropriate and seek medical review

- **Infection:**
    - Look for and treat infection, seek medical review if required
    - Avoid unnecessary catheterisation and adopt infection control procedures as per LHCH Policy

- **Acute illness**
    - Seek medical review, assess and treat as able

- **Mobility**
    - Encourage walking where appropriate (provide walking aids as needed) or full active range of movement exercises with assistance from physiotherapy / Rehab team

- **Analgesia/pain**
    - Review pain management
    - Consider use of ABBEY pain score
    - Escalate if pain control inadequate, consider seeking advice from pain team
    - Review opiate medications and reduce/stop if able

- **Medications**
    - Review medicines with particular attention to polypharmacy

- **Nutrition**
    - Address poor nutrition and, where applicable, ,refer to Dietician /Salt Team for advice and support
    - Ensure dentures are available and fit properly

- **Sensory**
-
    - Ensure hearing aids and visual aids are available and in good working order to those who need them
    - Complex care may be required (support from Patient Experience Matron)

- **Sleep patterns**
    - Reduce noise during sleep periods
    - Avoid medical and nursing interventions during sleep periods
    - Use appropriate level of lighting for time of day
    - Introduce cognitively stimulating activities during waking hours
    - Use of Ear plugs / Eye Masks
    - (Instalment LED Ceiling lights within ITU side rooms)
    - (Sleep Bundle is used in Critical Care only)

Benzodiazepines, used as a sleep aid, may increase the risk of delirium in some patients and should be avoided. If a short-term term sleep aid is required, a short acting drug such as

zopiclone may have a better risk/benefit profile. Night sedation should be used in low dose and titrated to effect and should not be prescribed regularly or for long periods of time.

No pharmacologic intervention (for example, haloperidol) has been shown to reduce the incidence of delirium in at risk groups, and as such prophylactic therapy should not be started.

Information and practical guidance with regards to prevention, diagnosis and management of patients with delirium can be found in Appendix 1 - Delirium Help Sheet.

3.4 Assessment Tools

Where a patient is thought to be showing signs of delirium in the ward area, assessment by a medical practitioner trained in the diagnosis and management of delirium should be performed. This should be guided by, and recorded within, the EPR document Delirium Assessment and Management Tool.
Details of this and step-by-step in the patient instructions on completion are also held within the Delirium Assessment and Management Tool.

In the ICU and POCCU, nursing staff must record the ***Richmond Agitation and Sedation Score*** (**RASS**) (Appendix 2) every hour during the day, and 4 hourly overnight. The RASS assessment tool forms part of the delirium assessment tool, the **CAM-ICU** (Appendix 3). In addition, the RASS allows sedation to be tailored to the individual patient needs and can allow clinicians to address under and over-sedation.

For Critical Care:

Nursing staff within the Critical Care Areas should perform a formal CAM-ICU assessment for delirium on a twice daily basis, ideally within first 2 hours of the morning and evening shifts. This assessment should be performed and recorded within the Delirium Assessment and Management Tool. Precipitants of delirium will also be screened for within this tool to try to reduce the risk of delirium developing, and tailored interventions will be recommended. Where the patient is found to be positive for delirium, a Mental Capacity Assessment and an application for Deprivation Of Liberty (DOLS) should be completed and referral to Safeguarding Team . (Appendix 3)

For Ward Staff:

Nursing staff within the Ward Areas should perform a Delirium Risk Assessment twice a day, ideally within 6 hours of the morning, and night shift. If the patient has an altered mental state this should be recorded within the Delirium Assessment and Management Tool within 24 hours (once per day). (Appendix 4) Precipitants of delirium will also be screened for within this tool to try to reduce the risk of delirium developing, and tailored interventions will be recommended. Where the patient is found to be positive for delirium, a Mental Capacity Assessment and an application for Deprivation Of Liberty (DOLS) should be completed and referral to Safeguarding Team .

Upon completion of Delirium Risk Assessment Tool the diagnosis of delirium, if present, will be confirmed. The results must be documented within the EPR document Delirium Assessment and Management Tool and communicated to the medical team leading the patients care. Ongoing management of the patient is described below and will also be presented as a guide to clinicians within the Delirium Assessment and Management Tool. (Appendix 4)

Discharges to Ward Areas:

For those patients at risk of delirium or who have had an episode of delirium, the patient should be cared for by a team of healthcare professionals who are familiar to the person at risk. Avoid moving patients within and between wards or rooms unless absolutely necessary. If the patient is to be discharged from Critical Care this decision will be made and agreed by the intensivist; ANP; Nurse in Charge and Staff Nurse. This will discussed at the daily bed meeting with the Hospital Coordinators and Divisional Matrons/Ward Managers. This is to maintain the patient's safety in a more orientated environment to continue their post-operative recovery. This acts in the patient's best interest for their enhanced level of care, 1.1 . The ward areas are now implementing a role responsible for toilet monitoring.

Prior to discharge a Long Term Discharge Plan is sent out to ward managers, Divisional Matrons, outreach, hospital coordinates of the patients complex needs and if required enhanced Level of Care (1.1.).

On discharge from CCA a transfer summary on EPR will document patients psychological state and specifically plan of care is documented.

On arrival to ward area staff perform a bed side handover using Critical Care Bedside handover. (This including ward to ward transfers).

3.5 Treatment

If there is difficulty distinguishing between delirium and dementia, or delirium superimposed on dementia, treat for delirium first.

The mainstay of the management of patients with delirium is non-pharmacological. **Anti-psychotic medications should NOT be used unless de-escalation techniques are ineffective or inappropriate.** This group of drugs have a significant range of side effects and should therefore only be used for short periods and only if the patient is deemed to be at risk to self or others.

3.5.1 Identification of Underlying Cause

A key principle of delirium treatment is the identification and management of the underlying cause, or combination of causes, of delirium. A diagnosis of delirium should prompt a thorough review of the patient, medicines and environment, as guided by the Delirium Assessment and Management Tool on EPR. This will guide the medical professional through some of the common precipitants of delirium and will provide some guidance regarding tailored interventions that may reduce the severity and duration of the delirium episode. The precipitants and interventions are the same as those listed in the section on Prevention of Delirium above.

The Delirium Assessment and Management Tool may be completed on more than one occasion, should the clinical presentation of the patient change. Staff may also wish to refer

to the Delirium Help Sheet (Appendix 1) for further information on non-pharmacological management of delirium.

It is the responsibility of both medical and nursing staff that movement of patients with delirium both within and between wards or rooms is avoided unless necessary. Also, where feasible, these patients should be cared for by healthcare professionals that are familiar to them.

Both medical and nursing staff should ensure effective communication and constant reorientation of the patient. Reorientation today, date, time and place and the healthcare professional's role should occur frequently. Reassurance should be provided to the patient. Medical and nursing staff should involve family, friends and carers with reorientation and reassurance regarding the management of the patients care. Families should be provided a Delirium Patient and Family Information Leaflet in order to assist in this.

3.5.2 An Approach to De-escalation

The de-escalation of an agitated patient can be challenging for medical and nursing staff. Effective de-escalation can reduce the requirement for pharmacological intervention but there is little agreement on the recognised techniques that should most effectively be used. Appendix 1 gives some advice on approaches to these patients. In addition, the recently developed English modified De-escalation of Aggressive Behaviour Scale (EMDABS) provides a more validated approach, although mainly within the in-patient mental health arena. Some of the features of the EMDABS are listed below. Not all aspects will be applicable to all circumstances, but can be used selectively as the situation requires.

- Acknowledge the patients concerns
- Try not to argue with the patient – to them, their hallucinations and disorientation may be very real and they may become more distressed if there is repeated challenging of this. Try to gently re-orientate the patient in time and place but if there are signs that the patient is becoming antagonised further by this, try alternative methods to calm them as below
- Talk about their concerns and anxieties
- Try to reduce fear by providing distraction
- Remain calm – try to maintain a calm tone of voice, give the patient one voice to focus on and at a volume that is suitable for the patients hearing. If the presence of several members of staff in the room, all talking at once and over each other, is occurring, this can create a stressful and distressing environment that may add to the delirium.

3.6 Management of Severely Distressed or Agitated Patients

Management of the patient diagnosed with delirium should primarily be non-pharmacological and efforts should be made to reassure and de-escalate the situation where able. Pharmacological management should be reserved for patients whose symptoms of delirium would threaten their own safety or the safety of other persons or would result in the interruption of essential therapy.

There is no consistent evidence that any pharmacological treatment reduces the duration of a delirium episode.

For ward patients, the second generation anti-psychotic agent **quetiapine** is to be used as the first line treatment, or **haloperidol** where quetiapine cannot be used or an intravenous preparation is required. Advice on dosing and titration can be found in Appendix 5 – Drug Management of Delirium in Ward Patients. Quetiapine has been shown to display the lowest

incidence of extrapyramidal side effects and should therefore be used as the first line treatment where the oral route is available. Caution should be exercised to avoid over-sedation and the dose should be titrated slowly and then reduced/stopped if there is a concern regarding this. Patients can also exhibit orthostatic hypotension which should be considered when mobilising them.

In the critical care environment, **quetiapine** is to be used as the first line treatment. Advice on dosing and titration can be found in Appendix 6 – Drug Management of Delirium in ICU Patients. **Risperidone** has also been used with some success and is therefore still included in the treatment algorithm. Prescribers should be aware, however, of the longer half-life of risperidone and the risk of over-sedation where it is used. **Haloperidol** can still be used where an intravenous preparation is required. Again, dosing advice for the titration of risperidone and haloperidol is provided in Appendix 6.

It should be noted that the use of anti-psychotic drugs for the treatment of delirium are 'off-label' indications. Although there is good evidence for the use of these drugs in delirium, the lowest effective dose should be used and a timely cessation of therapy should be sought.

All medications used in this context have sedating effects and staff should be alert to the potential occurrence of this and reduce/stop medication as soon as possible.

Anti-psychotic medications started during admission to LHCH should be weaned and stopped prior to discharge. If this is not possible, or where the dose is weaning at the time of discharge, clear advice for the patient's GP on cessation of treatment should be provided. Where the patient is transferred to another Trust to continue their care, it should be clearly communicated that the anti-psychotic medication is newly prescribed during this admission and ongoing review of its requirement should be performed.

Anti-psychotics should be used with caution or not at all in patients with Parkinson's disease and in Lewy-Body dementia. In these patient's agitation may be managed with benzodiazepines, as per guidance in Appendix 7 – Management of Delirium in Patients with Parkinson's Disease or Lewy Body Dementia. Where control is inadequate in this patient group, guidance should be sought from the patient's neurologist who may agree to a trial of oral quetiapine, as this second generation antipsychotic drug is associated with the lowest incidence of extrapyramidal side effects. If a trial of this is planned, patients should particularly be monitored for any reduction in motor function, over sedation and orthostatic hypotension.

Review symptoms of delirium regularly as guided by the Delirium Risk Assessments and, if symptoms persist, re-evaluate for underlying causes and the possibility of dementia.

3.6.1. Benzodiazepines

These drugs can paradoxically increase agitation by way of disinhibition. Their use may prolong or worsen the course of delirium and in older patients with respiratory co-morbidities who have undergone surgery respiratory depression becomes a risk. Therefore, benzodiazepines should not be used as first line therapy in the treatment of delirium and should be reserved for the cases in which clinical circumstances limit use of antipsychotics.

3.6.2 Sedation in Emergency Situations

Rarely there may be circumstances where delirium is severe and the patient is an imminent threat to the safety of themselves or those around them e.g. trying to leave the hospital or displaying a high level of aggression. In these circumstances the use of a benzodiazepine via

either an IV or IM route may be required. Advice on dosing is provided within Appendix 8 – Sedation in the Emergency Situation.

All patients that receive IM or IV benzodiazepines will require a period of enhanced monitoring to ensure that there is not excessive sedation that could lead to cardiorespiratory compromise. Where IM or IV benzodiazepines are required, in addition to immediate review by the medical team/ANP managing the patient, there should be immediate referral to and review by the Outreach Team during the day, and the Hospital at Night Team during the night. Monitoring of this patient group can be very challenging but as a minimum there should be assessment of respiratory rate and ideally oxygen saturation every 5-10 minutes.

Suggested doses are included in Appendix 8, along with expected times of onset depending on the route of administration. To avoid over-sedation, the smallest possible dose should be administered and titrated to effect, giving sufficient time for onset to occur before additional doses are administered.

Where the maximum dose advised by the treatment algorithm has been administered without sufficient effect and within the expected onset time, assistance from the Critical Care on-call team should be sought.

Once the safety of the patient has been confirmed, there should be assessment for any reversible causes of delirium and a tailored package of interventions should be utilised. Plans for ongoing management of delirium should be made, along with plans for pharmacological management, ideally with an oral preparation.

3.7 Sleep and Delirium

Sleep deprivation is a major contributor to the development of delirium. In critical care environment patents sleep 2- 8 hours of 24 h in average. Half of the spent in sleep is during daytime hours and interrupted frequently and sleep is not restful and restorative. Where patients are deemed at risk of delirium or are suffering an episode of delirium the following are essential

- Reduce noise during sleep periods
- Avoid medical and nursing interventions during sleep periods
- Try to group any interventions together so that repeated disturbance of the patient is limited
- Use appropriate level of lighting for time of day
- Introduce cognitively stimulating activities during waking hours e.g. newspaper, radio, books
- Visit to garden area within Critical Care
- Instalment LED Ceiling Lights in ITU Rooms
- (Sleep bundle: within CCA)

Ideally pharmacological sleep aids should be avoided as they may increase the incidence and severity of delirium. Where, despite the above, the patient is struggling to sleep at night and particularly if the patient is being managed in the critical care environment where there is more significant loss of day/night differentiation and circadian rhythm, consider the use of **melatonin**. Patients cared for within the critical care area should already be in receipt of the “Sleep Bundle” of care to try to improve sleep duration and quality.

3.8 Support

3.8.1 Medical emergency Team (MET)

When dealing with acute episodes of delirium or aggressive behaviour where a patient is a risk to themselves, or others (patients or staff) escalate to the MET team stating Delirious / Aggressive Patient

3.8.2 Outreach Team and Hospital @ Night Team

The Outreach team and Anp"s are available to provide support in the diagnosis and management of patients with delirium during the daytime. Overnight, the Hospital @ Night team are responsible to ensure patients who have had delirium are handed over to ensure support for ward staff is available if required ..

3.8.3 Psychology Team

critical care psychology or ward support cover wherever possible.
Consider a referral to psychology in the following circumstances:

- Where the acute phase of delirium has resolved and the patient may benefit from psychological input linked to distressing memories (dreams/memories/flashbacks) of the delirium (and consents to the referral).
- For staff advice and support around understanding/managing challenging behaviour linked to the patient's lived experience of delirium.
- Where the underlying causes of delirium have been assessed and treated yet the delirium is prolonged. In this instance it may be beneficial to refer for further neuropsychological assessment (e.g: considering dementia v delirium overlap/pre-existing cognitive factors/stroke etc) and where family may benefit from support).

Referrals should be actioned via the "Clinical Health Psychology" orders on EPR. Or where this is not possible, please contact 0151 600 1340. We will aim to respond to the referral within 48 hours under the

3.8.4 Security Team

Security Team can be contacted on Ext 1999 to assist with and support if any patient is violent and aggressive.

In difficult cases, the medical or Outreach team may contact the Delirium Clinical Lead
Dr Fahmi Faraz (Anaesthetist and Intensivist).
Please
Also, staff should speak to nurse in charge, ward manger, Matron, Hospital coordinator or hospital manager on call for support and guidance

3.8**.** 5 Reporting Incidents to Police

Any incidents of assault or abuse towards staff are unacceptable. The reporting of such incidents to Merseyside police is always an option, giving consideration to the severity of the incident, and the wishes of those involved. Each case should be judged on the circumstances occurring at the time, and the impact the incident has had on staff or others involved .

3.8.6 Mental Health Team.

We have an integrated Mental Health Service active within the trust which provided this information.
There is a clear presence in the hospital, and clear referral pathway and training offered. A full resource pack is available electronically on the trust intranet.
They actively promote and support local interventions and campaigns around mental health Trust comms are updated weekly around Mental Health and Delirium.
The Mental Health service have input with the Delirium Steering groups, providing training around de-escalation with challenging patients with altered mental state and will provide full De-Escalation training to hospital at night teams.
In the near future, there is a .5 FTE Consultant Psychiatrist joining the team and an Admin Staff position to be filled, expanding the team and service availability and support for all staff and patients dealing with Delirium- collaborate working with Critical care and Psychology.

3.9 Safeguarding

Where patients are diagnosed with delirium and if they lack mental capacity and restrictions meet the threshold, they may require completion of a Deprivation of Liberty Safeguard (DOLS) application. Advice regarding this can be obtained by reviewing the Safeguarding Policy or following discussion with the Safeguarding Lead Nurse. A prompt for this to be performed is included in the Delirium Assessment and Management Tool.

3.10 Information for Patients and Families

Information leaflet about delirium should be offered and discussed to all patients, family and friends when visiting for a Preoperative appointment. Also, if a patient has an episode of Delirium as an inpatient an information leaflet should again be offered to patient and their family. This would be then documented on EPR. A prompt to remind clinicians to provide this information is given in the Delirium Assessment and Management Tool.

The LHCH information leaflet that can be downloaded from the hospital internet site (from Homepage: Our patients -> Patient information leaflets -> Delirium) and should be provided in all instances along with additional verbal support should the patient or their family require it. The link is below:

http://www.lhch.nhs.uk/media/5053/delirium.pdf

In addition to this, NICE (the National Institute for Health and Clinical Excellence) have published information that can be downloaded from the link below:

http://www.nice.org.uk/nicemedia/live/13060/49911/49911.pdf

3.11 Discharge

The diagnosis of delirium must be included in the discharge letter. As a minimum, the episode of delirium should be recorded within the Problem List on EPR and additional details recorded within the text of the discharge letter as appropriate. A prompt for the episode of delirium to be recorded within the Problem List on EPR is included within the Delirium Assessment and Management Tool. Where delirium is ongoing, or concern about the long-term diagnosis (delirium or dementia) exists, adequate discharge planning should involve the General Practitioner and the discharge planning team, along with the clinical team with a view to involving the community elderly mental health services.

Where patients have been commenced on anti-psychotic medication during their admission, the appropriateness of continuing medication at discharge must be considered. In the majority of cases it is expected that clinical teams will review the requirement for such medicines on a daily basis and will gradually wean the dose and then stop the medication prior to discharge. Where this is not possible, either due to the imminent discharge or transfer of the patient to an alternative medical facility, the discharge or transfer letter should clearly state the plan for weaning, discontinuing or continuing the medication as appropriate. Where the decision to continue anti-psychotic medication started at LHCH is made, this should be clearly communicated to the patient's GP.

4. Policy Implementation Plan

The drug treatment algorithms will be submitted to the Drugs and Therapeutics Committee for approval. Following this the policy will be submitted to all Divisional Governance groups for information and approval.

This policy will be implemented throughout all clinical areas by the;

- Medical Director
- Associate Medical Directors
- Clinical Leads
- Assistant Directors of Nursing to all Clinical Areas.
- Divisional Matrons
- Ward / Department Managers will implement this policy within their areas of responsibility.
- Safeguarding Lead Nurse

The policy will be disseminated via clinical governance meetings, ward managers, safety huddles, group teaching sessions and one-to-one teaching of key groups including the Outreach, Hospital at Night teams and Safety Lead Nurse. Where there are specific difficulties in the management of patients, advice can be sought directly from Clinical Leads.

Effective application of the policy will be achieved with assistance from EPR documents that will guide the user through the assessment and management of the patient as described. Regular feedback on the effectiveness of the EPR documents will be sought and they will be updated as required in order to maintain their effectiveness.

5. Monitoring of Compliance

Regular auditing of compliance with the policy will be performed by the Clinical Leads for Delirium and results of this will be disseminated and used to assess and then improve practice according to the NICE Quality Standards. The use of the Delirium Assessment and Management Tool will allow assessment of the incidence of delirium within the ward setting, along with compliance with all other aspects of the policy according to the current NICE quality standards.

Within the Critical Care Areas the performance of regular routine delirium screening using the CAM-ICU tool will be audited. This will allow assessment of the current baseline prevalence of delirium and the impact of targeted interventions within this patient group. Use of Facilities board to monitor whether a patient has a positive episode of Delirium and has completed

Delirium in Risk assessment tool has been completed. Weekly data will be sent to Matrons monitor compliance and monthly data will be discussed at Senior Nurse meeting.

6. References

Bathula M, Gonzales JP, The pharmacological treatment of intensive care unit delirium: A systematic review, Annals of Pharmacotherapy 2013; 47: 1168-1174

British Geriatrics Society and Royal College of Physicians, *Guidelines for the prevention, diagnosis and management of delirium in older people*. *Concise guidance to good practice series, No 6*. London: Royal College of Physicians; 2006.

Burns A, Gallagley A and Byrne J. Delirium. *Journal of Neurology, Neurosurgery and Psychiatry 2004. 75; 362367.*

Devlin JW et al., Efficacy and safety of quetiapine in critically ill patients with delirium: A prospective, multicenter, randomized, double-blind, placebo-controlled pilot study, Critical Care Medicine 2010; 38: 419-427

Ely, et al. *JAMA 2003; 289:2983-2991*.

Fernandez HH, Trieschmann ME, Friedman JH, Treatment of psychosis in Parkinson's disease: safety considerations, Drug Safety 2003; 26: 643-59

Groen JA et al, Treatment of delirium following cardiac surgery, Journal of Cardiac Surgery 2012; 27: 589-593

Hakim SM et al., Early treatment with risperidone for subsyndromal delirium after on-pump cardiac surgery in the elderly, Anesthesiology 2012; 116: 987-997

Hawkins SB et al., Quetiapine for the treatment of delirium, Journal of Hospital Medicine 2013; 8: 215-220

Inouye SK, van Dyck CH, Alessi CA, et al: Clarifying Confusion: the Confusion Assessment Method: *A New Method for Detection of Delirium. Ann Intern Med 113:941-948,1990*

Inouye SK. Delirium in Older Persons. *The New England Journal of Medicine 2006; 354:11571165.*

Kalisvaart KJ et al. Haloperidol Prophylaxis for elderly hip surgery patients at risk for delirium: a randomised placebo controlled study. *Journal of the American Geriatrics Society 2005; 53: 16581666.*

Kishi T, Hirota T, Matsunaga S, Iwata N, Antipsychotic medications for the treatment of delirium: a systematic review and meta-analysis of randomized controlled trials, Journal of Neurology, Neurosurgery and Psychiatry 2016; 87: 767-774

Mavandadi V, Bieling PJ, Madsen V, Effective ingredients of verbal de-escalation: validating an English modified version of the "De-Escalating Aggressive Behaviour Scale", Journal of Psychiatric and Mental Health Nursing 2016; 23: 357-368

Mu JL et al., Pharmacological agents for the prevention and treatment of delirium in patients undergoing cardiac surgery: systematic review and metaanalysis, Critical Care Medicine 2015; 43: 194-204

National Clinical guideline Centre, DELIRIUM: diagnosis, prevention and management *Clinical Guideline 103 July 2010*

Serafim RB et al., Pharmacologic prevention and treatment of delirium in intensive care patients: A systematic review, Journal of Critical Care 2015; 30: 799-807

Sessler, et al. *AJRCCM 2002; 166:1338-1344.*

Skrobik YK et al. Olanzapine vs haloperidol: treating delirium in a critical care setting. Intensive Care Medicine 2004; 30: 444-449
Tahir TA et al., A randomized controlled trial of quetiapine versus placebo in the treatment of delirium, Journal of Psychomatic Research 2010; 69: 485-490

Rudolph JL and Marcantonio ER. Postoperative Delirium: Acute Change with Long-term Implications*. Anesthesia and Analgesia 2011; 112: 1202-1211*

Vardy ERLC, Teodorczuk A, Yarnall AJ, Review of delirium in patients with Parkinson's disease, Journal of Neurology 2015; 262: 2401-2410

Vilke GM et al., Excited delirium syndrome: Treatment options and considerations, Journal of Forensic and Legal Medicine 2012; 19: 117-121

7. Appendices

APPENDIX 1

Delirium Help Sheet

PROBLEM	GOAL	ACTION	RATIONALE
Patient <u>at risk</u> of delirium/ confusion and may present with alterations in any of the following: <u>Cognitive function</u>: e.g., worsened concentration, slow responses, confusion. <u>Perception:</u> e.g., visual or auditory hallucinations. <u>Physical function:</u> e.g., reduced mobility, reduced movement, restlessness, agitation, changes in appetite, sleep disturbance. <u>Social behaviour:</u> e.g., lack of cooperation with reasonable requests, withdrawal, or alterations in communication, mood and/or attitude.	**To have a calm and well rested patient who is orientated to time and place, and to identify and treating any underlying causes of confusion/delirium**.	**<u>Ensure the following;</u>** • Lighting levels appropriate for time of day. • Regular and repeated (at least 3 times daily) cues to improve personal orientation. • Use of clocks and calendars to improve orientation. • Hearing aids and spectacles should be available as appropriate and in good working order. • Continuity of care from nursing staff. • Encouragement of mobility and engagement in activities and with other people. • Approach and handle gently. • Elimination of unexpected and irritating noise (e.g. pump alarms). • Regular analgesia • Encouragement of visits from family and friends who may be able to help calm the patient. Explain the cause of the confusion to relatives. Encourage family to bring in familiar objects and pictures from home and participate in rehabilitation • Fluid intake to prevent dehydration (use subcutaneous fluids if necessary) -Avoid constipation with good diet, fluid intake and mobility • Adequate CNS oxygen delivery (use supplemental oxygen to keep saturation above 95% unless patient has COPD). • Good sleep pattern (use milky drinks at bedtime, exercise during the day). Where feasible • Provide environmental and personal orientation • Encourage mobility • Maintain a good sleep pattern • Avoid complications (immobility, malnutrition, pressure sores, over sedation, falls, incontinence) • ***<u>Avoid</u>*:** • *inter- and intra-ward transfers* • *use of physical restraint* • *constipation* • *anticholinergic drugs where possible, and keep drug treatment to a minimum* • *catheters where possible*	Patients nursed in a good sensory environment and with a reality orientation approach, and with involvement of the multidisciplinary team help reduce the likelihood of confusion/delirium. Optimum physical health reduces the likelihood of delirium/confusion
Patient may become agitated due to confusion/delirium and become a danger to themselves and others	**Prevent harm and reduce agitation**	**<u>Ensure the following;</u>** • Inform medical staff immediately • Consider drug sedation	Drug sedation may be necessary: - to carry out essential investigations/treatment -to prevent patient endangering themselves or others -to relieve distress in a highly agitated/hallucinating patient.

Complications of confusion/delirium The main complications of delirium are: falls pressure sores nosocomial infections functional impairment continence problems over-sedation malnutrition.	**Prevention of complications**	**Ensure the following;** • ensure the Trust's Slips, Trips and Falls policy is adhered to • Ensure pressure areas are assessed and managed in line with Trust policy • Record MEWS score at least 4 hourly or as indicated. Ensure Sepsis care bundle is followed. • Ensure that there is a daily multidisciplinary review • A full continence assessment should be carried out. Regular toileting and prompt treatment of urinary tract infections may prevent urinary incontinence. Catheters should be avoided where possible because of the increased risks of trauma in confused patients, and the risk of catheter associated infection. • Refer to dietician and complete MUST tool as per Trust policy	Adhering to STF policy will prevent falls Adhering to Trust policy for pressure areas will reduce the likelihood of pressure sores Early identification & treatment of infection will prevent episodes of confusion/delirium Episodes of incontinence increase the likelihood of delirium/confusion Food alternatives that take into account the patient's preferences, and the option of finger foods should be considered. Adequate staffing levels should be ensured to support and encourage eating. Oral nutritional supplements can be considered.
Wandering **Patient may wander with potential to cause harm**	**Prevent harm to patient and others**	**Ensure the following;** • patient requires close observation at all times • encourage next of kin and family to communicate with patient • consider where the patient should be nursed i.e. side room, small bay • seek advice of medical staff	Attempts should be made to identify and remedy possible causes of agitation. If the cause of the agitation cannot be remedied, the next least restrictive option is to try distracting the agitated wandering patient. Relatives could be encouraged to assist in this kind of management. The use of restraints or sedation should only be used as a final option.
Rambling speech	**To have meaningful communication**	**Ensure the following;** • tactfully disagree (if the topic is not sensitive) • change the subject • acknowledge the feelings expressed – ignore the content.	Patients with delirium often exhibit confused and rambling speech. It is usually preferable not to agree with rambling talk, but to adopt strategies, depending on the circumstance:
Post traumatic stress	**To reduce the psychological effects of delirium**	**Ensure the following:** • Communication with all parties, including family and carers, involved in the patient's care is vital. • Prior to discharge assess the patient's cognitive and functional status. • Discharge summaries should be completed promptly.	As with all older people discharge should be planned in conjunction with all disciplines involved in caring for the patient, both in hospital and in the community (including informal carers). Practical arrangements should be in place prior to discharge for activities such as washing, dressing, medication etc. in accordance with the joint statement of the British Geriatrics Society and the Association of Directors of Social Services.

APPENDIX 2

The Richmond Agitation and Sedation Scale: The RASS*

Sedation Assessment

Score Term	Description
+4 Combative	Overtly combative, violent, immediate danger to staff
+3 Very agitated	Pulls or removes tube(s) or catheter(s); aggressive
+2 Agitated	Frequent non-purposeful movement, fights ventilator
+1 Restless	Anxious but movements not aggressive vigorous
0 Alert and calm	
-1 Drowsy	Not fully alert, but has sustained awakening (eye-opening/eye contact) to *voice* **(>10 seconds)**
-2 Light sedation	Briefly awakens with eye contact to *voice* **(<10 seconds)**
-3 Moderate sedation	Movement or eye opening to *voice* **(but no eye contact)**
-4 Deep sedation	No response to voice, but movement or eye opening to *physical* stimulation
-5 Unarousable	No response to *voice or physical* stimulation

Procedure for RASS Assessment

1. Observe patient

a. Patient is alert, restless, or agitated. **(score 0 to +4)**

2. **If not alert, state patient's name and *say* to open eyes and look at speaker**.

a. Patient awakens with sustained eye opening and eye contact. **(score –1)**

b. Patient awakens with eye opening and eye contact, but not sustained. **(score –2)**

c. Patient has any movement in response to voice but no eye contact. **(score –3)**

3. When no response to verbal stimulation, physically stimulate patient by shaking shoulder and/or rubbing sternum.

a. Patient has any movement to physical stimulation. **(Score –4)**

b. Patient has no response to any stimulation. **(Score –5)**

If RASS is -4 or -5, then **Stop** and **Reassess** patient at later time

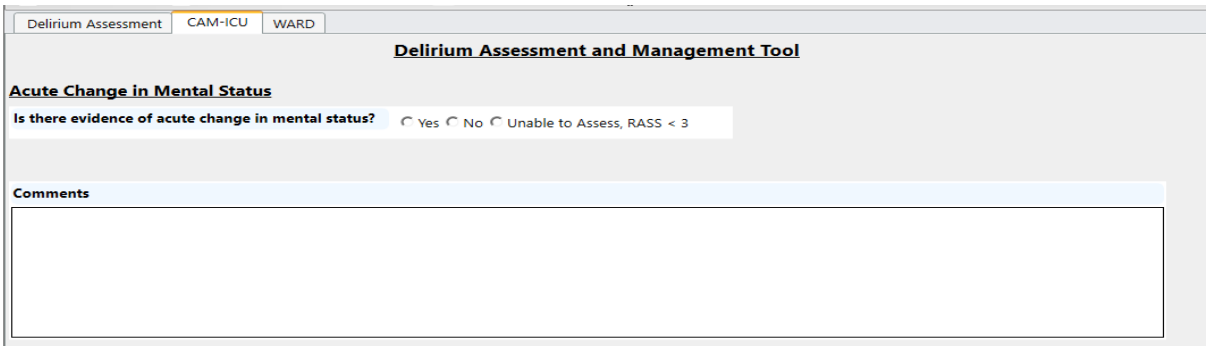
If RASS is above - 4 (-3 through +4) then **Proceed to Step 2**

*Sessler, et al. AJRCCM 2002; 166:1338-1344. Ely, et al. JAMA 2003; 289:2983-2991.

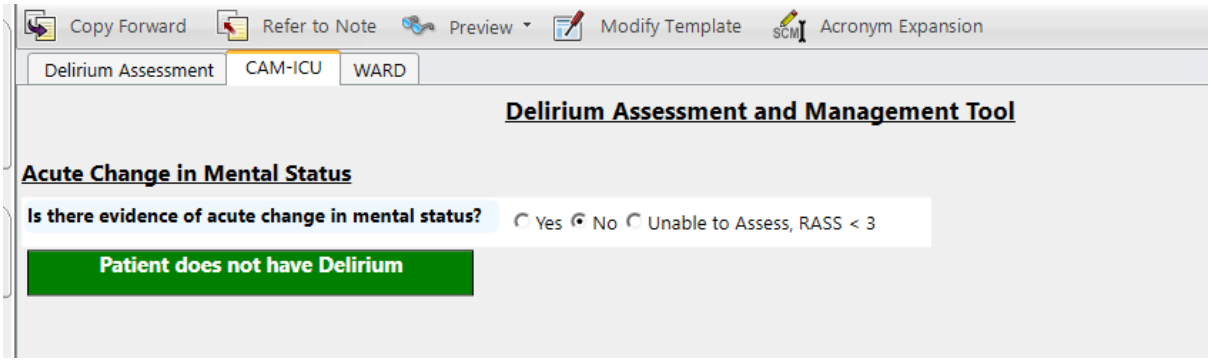
APPENDIX 3

CRITICAL CARE DELIRIUM RISK ASSESSMENT

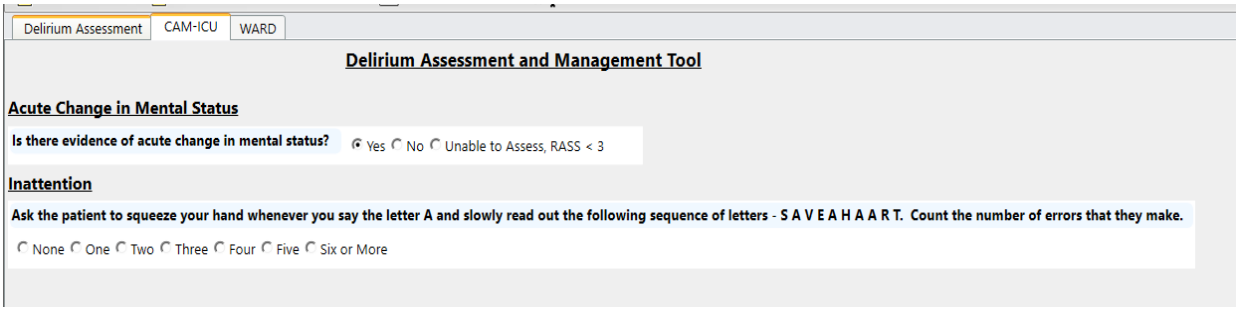
DELIRIUM RISK ASSESSMENT MANAGEMENT TOOL – CAM-ICU



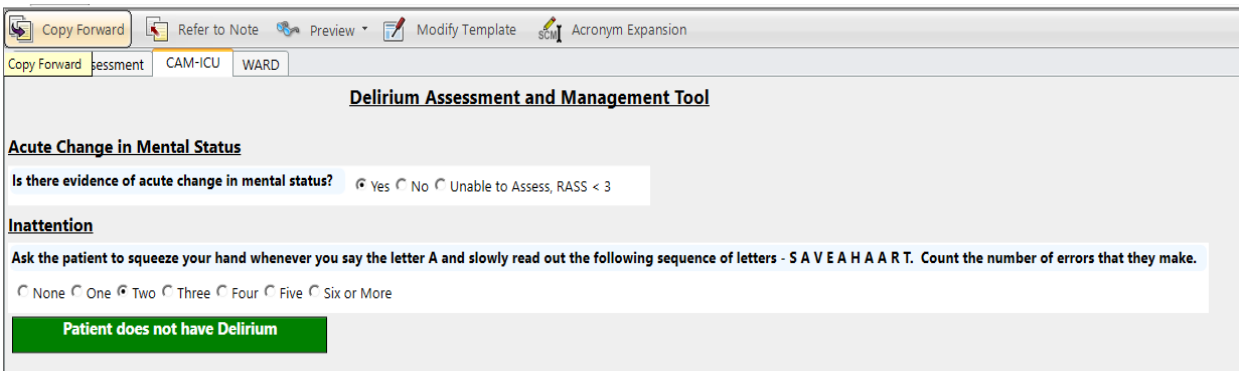
If No Chosen:



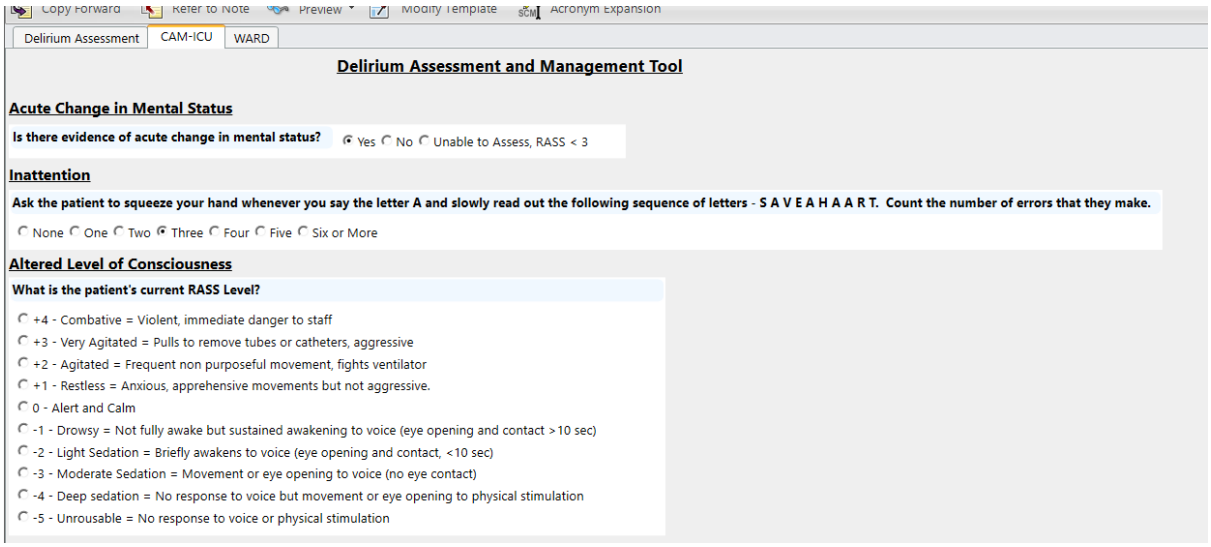
If Yes chosen…



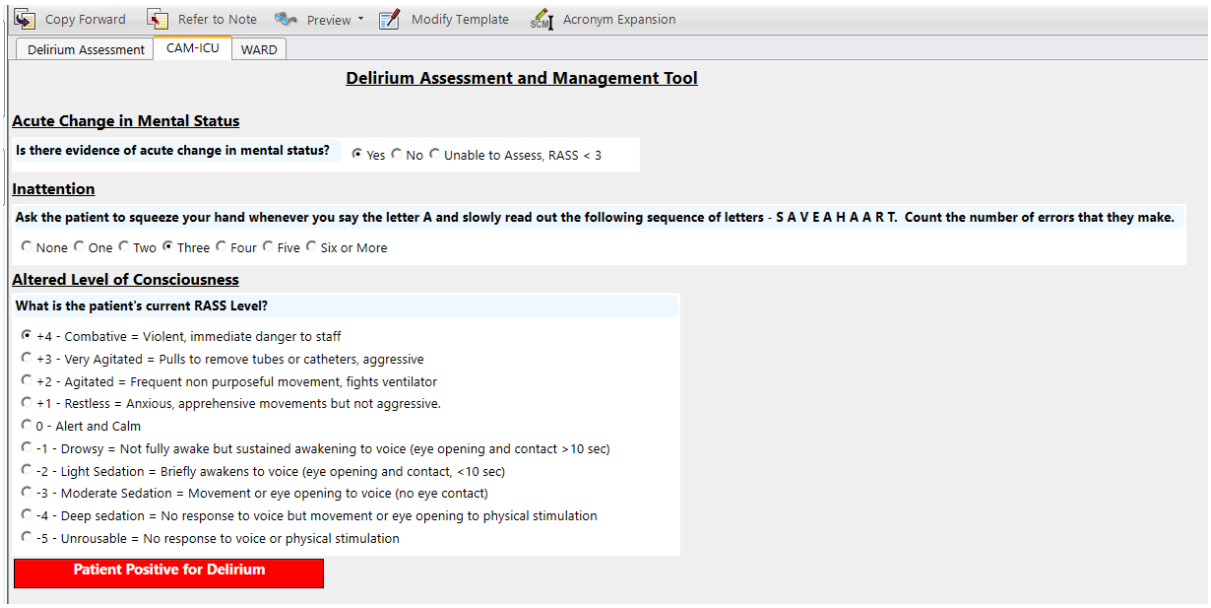
If less than three errors



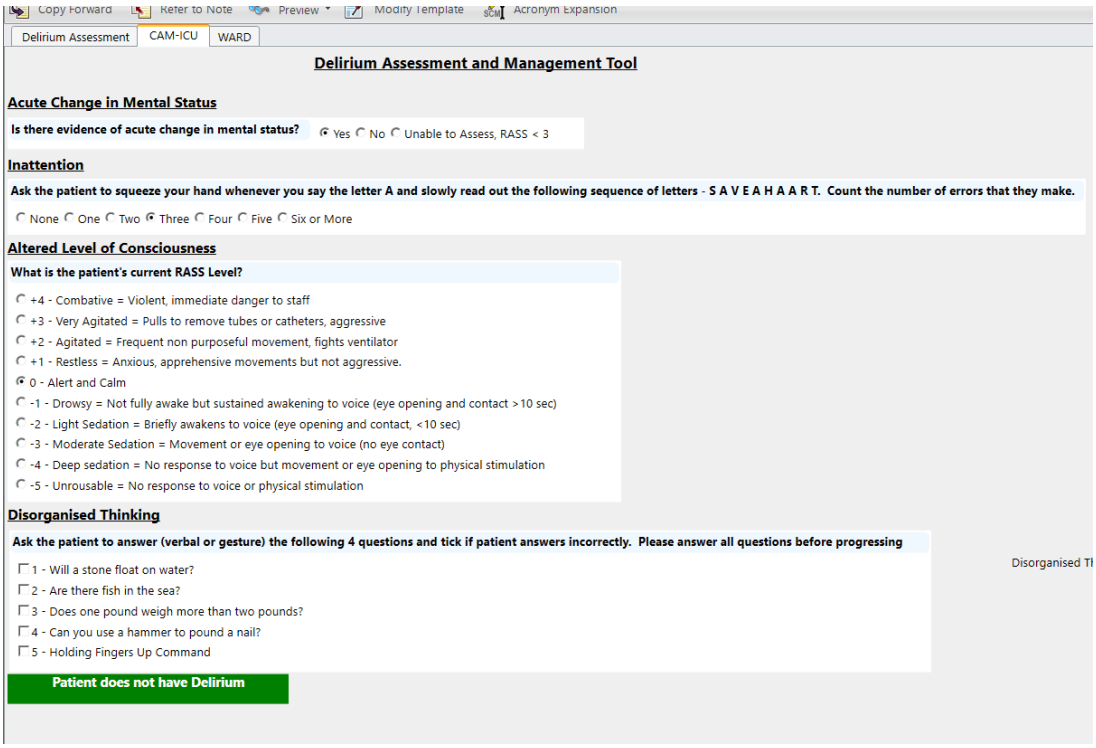
If 3 or more errors…



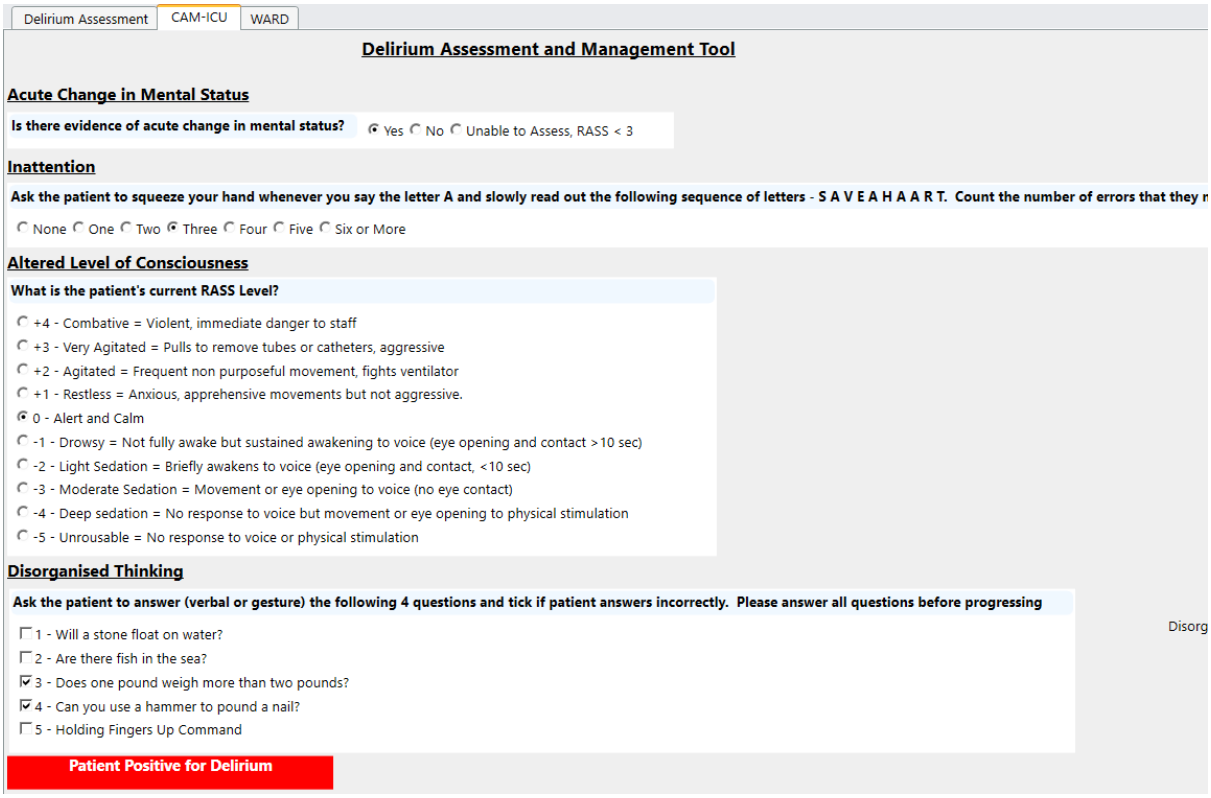
If anything other than alert and calm…



If Alert and Calm then Disorganised thinking score appears, then if none or only 1 of the Disorganised Thinking questions are wrong then….



IF more than 1 Disorganised thinking scores are wrong then…



If the patient triggers as Positive then “Positive” will populate the Document title when saved in Documents Tab.

NOTE: new line to Disorganised Thinking. Staff will demonstrate a Fingers command which will then be ticked if the patient gets this wrong.

Tailored Interventions

Are any of the following potentially reversible causes of delirium present?

Is there a history of recent smoking, high alcohol intake or use of drugs such as opiates or benzodiazepines?	○ Yes ○ No
Is the patient showing signs of disorientation in time or place?	○ Yes ○ No
Is there evidence of dehydration such as a complaint of thirst, dry mouth or low urine output?	○ Yes ○ No
Has the patient opened their bowels in previous 24hrs?	○ Yes ○ No
Does the patient have an SpO2 >95% (or an appropriate level set by the medical team).	○ Yes ○ No
Does the patient have a MEWS score >/= 3?	○ Yes ○ No
Is the patient able to mobilise independently?	○ Yes ○ No
Is the patient in pain?	○ Yes ○ No
Is the patient currently prescribed any medications that may be contributing to their delirium?	○ Yes ○ No
Is the patient eating an adequate amount at mealtimes?	○ Yes ○ No
Does the patient usually wear glasses/hearing aids?	○ Yes ○ No
Is the patient able to sleep at night and stay awake during the day?	○ Yes ○ No
Are Hand Mitts in Use	○ Yes ○ No

Management - only to be completed if patient positive for Delirium.

The treatment of delirium is always non-pharmacological in the first instance. Reassure the patient regularly, use the tailored interventions above and try to de-escalate the situation.

Pharmacological management should be reserved for patients in severe distress or where they are deemed to be a risk to the safety of themselves or others. Advice on prescribing can be found within the Delirium Policy on the Intranet.

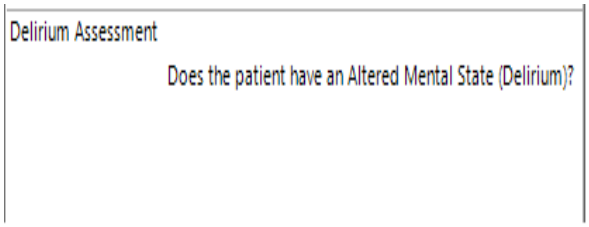
Has a referral to the safeguarding team for a Deprivation of Liberty Safeguarding assessment been made?	○ Yes ○ No...	***Click Here for Referral to Safeguarding Team***
Has a referral been made to Psychiatric/Psychology Team?	○ Yes ○ No...	***Click Here for Referral to the Psychology Team***
Has a copy of the Delirium Patient and Family information leaflet for relatives/cares been given to the patient and their family?	○ Yes ○ No	

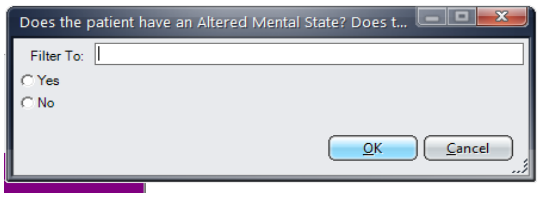
NOTE: The patient and family Information leaflet can be downloaded from the intranet

Has delirium been recorded in the patient problem list?	○ Yes ○ No
Please complete Mental Capacity Assessment to determine understanding of treatment and care	○ Yes ○ No

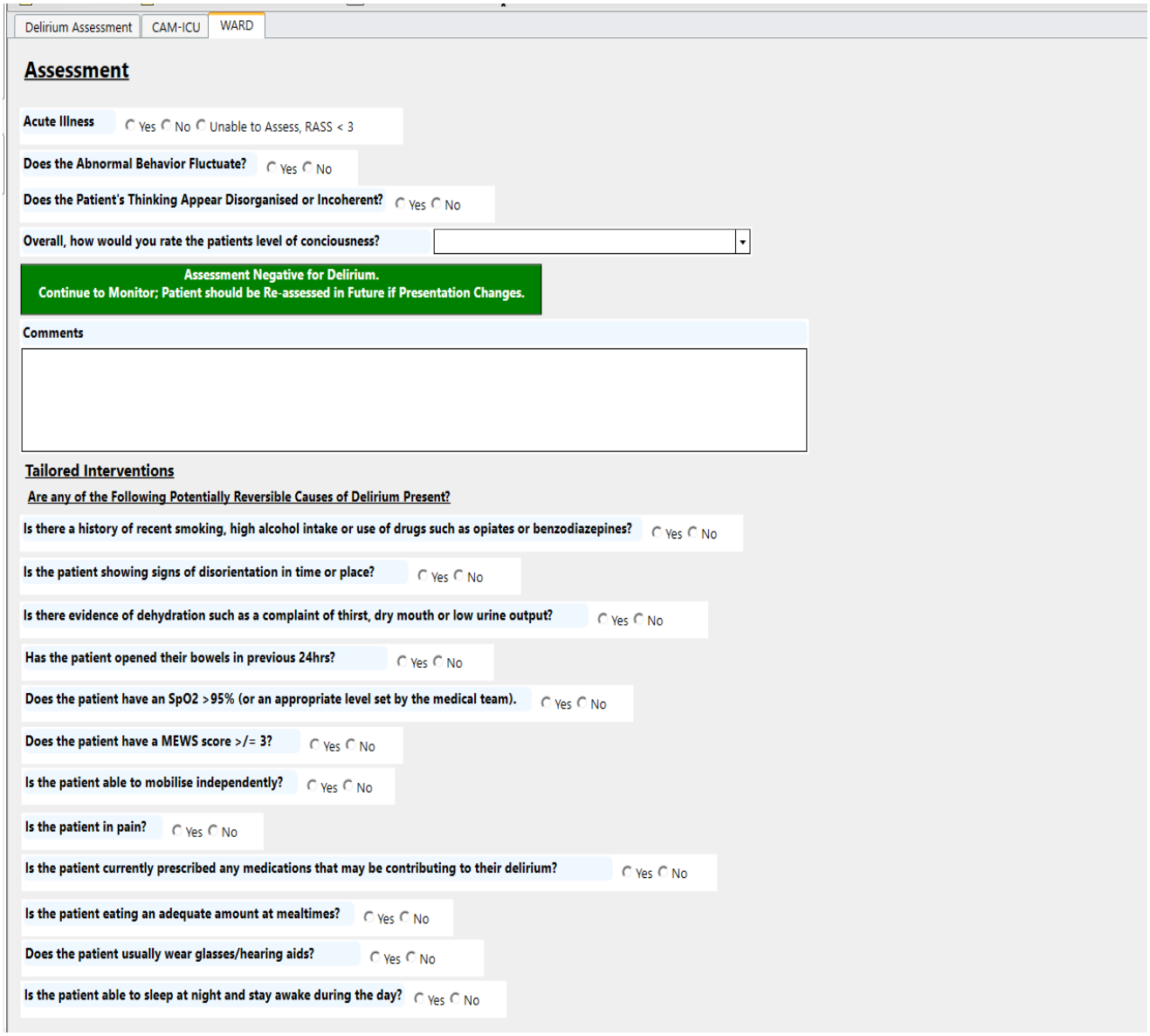
APPENDIX 4

WARD AREA DELIRIUM RISK ASSESSMENT





WARD DELIRIUM RISK ASSESSMENT MANAGEMENT TOOL



APPENDIX 5

Management of Hyperactive Delirium in Ward Patients

Drug treatment should only be used after reviewing for reversible causes employing de-escalation techniques and only if the patient is severely distressed or deemed a risk to themselves or others

All patients receiving anti-psychotic medication for delirium should undergo daily ECG monitoring of QTc duration as all anti-psychotic drugs may precipitate QTc prolongation

Do not use in patients with Parkinson's disease or Lewy body dementia

1st Line – Second generation Anti-psychotic

Quetiapine 12.5-25mg BD PO/NG, titrated by 12.5-25mg every 24 hours, if required, to maximum dose of 200mg BD. If exceeding dose of 100mg BD, consider seeking expert advice from psychiatry services. In elderly patients, always start at lower dose and titrate cautiously.

OR

Haloperidol 2.5-10mg PO/IV/IM titrated in 2.5mg aliquots over 30 minutes to ensure safety. Where treatment found to be effective, but repeated dosing required, consider dividing total dose required to achieve control into 3-4 doses and administer regularly PO

2nd Line – Rescue therapy for significant agitation

Haloperidol 2.5-10mg IV/IM titrated in 2.5mg aliquots over 30 minutes to ensure safety. Where treatment found to be effective, but repeated dosing required, consider dividing total dose required to achieve control into 3-4 doses and administer regularly PO

APPENDIX 6

Management of Hyperactive Delirium in ICU Patients

Drug treatment should only be used after
reviewing for reversible causes
employing de-escalation techniques
and only if the patient is severely distressed or deemed a risk to themselves or others

All patients receiving anti-psychotic medication for delirium should undergo daily ECG monitoring of QTc duration as all anti-psychotic drugs may precipitate QTc prolongation

Do not use in patients with Parkinson's disease or Lewy body dementia

1st Line – Second generation anti-psychotic agent

Quetiapine 12.5-25mg BD PO/NG, titrated by 25mg every 24 hours, if required, to maximum dose of 200mg BD. If exceeding dose of 100mg BD, consider seeking expert advice from psychiatry services. In elderly patients, always start at lower dose and titrate cautiously.

OR

Risperidone 0.5mg BD PO/NG, titrated by 0.5mg every 48 hours, if required, to maximum dose of 4mg/day

2nd Line – Rescue therapy for significant agitation

Haloperidol 2.5-10mg IV/IM titrated in 2.5mg aliquots over 30 minutes to ensure safety. Where treatment found to be effective, but repeated dosing required, consider dividing total dose required to achieve control into 3-4 doses and administer regularly PO

APPENDIX 7

Management of Delirium in Patients with Parkinson's Disease or Lewy Body Dementia

This group of patients **should not** receive haloperidol as this may exacerbate their motor dysfunction

All patients should immediately referred to, and reviewed by
the medical team/ANP involved in the patient's care,
along with either
a member of the Outreach Team or Hospital @ Night Team

IV Lorazepam 0.5-4mg, titrate in 0.5mg IV aliquots every 5-10 minutes until safety achieved

IM Lorazepam 1-4mg, titrate in 1mg aliquots, may take up to 30 minutes for onset

Where control is inadequate or delirium recurs, seek advice from neurologist who may advocate trial of quetiapine (see policy).

APPENDIX 8

Management of Patients with Severe Agitation requiring Rapid Sedation

ONLY TO BE USED FOR SEVERE AGITATION WHERE DE-ESCALATION TECHNIQUES AND FIRST/SECOND LINE INTERVENTIONS HAVE FAILED AND THE PATIENT IS AT RISK OF IMMEDIATE SIGNIFICANT HARM

The patient must be referred for immediate senior medical/ANP review and the Outreach or H@N Team should be informed and must review and monitor as per policy

IV Lorazepam 1-4mg, titrate in 1mg IV aliquots every 5 minutes until safety achieved

IM Lorazepam 2-4mg, may take up to 30 minutes for onset

OR

IV Midazolam 1-5mg, titrate in 0.5-1mg IV aliquots every 5 minutes until safety achieved

IM Midazolam 2.5mg-5mg, may take up to 15 minutes for onset

9. Endorsed By:-

Name of Lead Clinician/ Manager or Committee Chair	Position of Endorser or Name of Endorsing Committee	Date

10. Record of Changes

Section Number	Version Number	Date of Change	Description of Amendment	Description of Deletion	Description of Addition	Reason
1	V.3	01/04/21	Rewording of policy statement to clearly define delirium.			Wording so it is easier for staff to use and follow.
3	V.3	01/04/21	Added in Delirium assessment for ward areas.			Ward area assessment needed.
3.8.5	V3	25/05/2022			Reporting incidents to police	Further staff support if required
3.8.3	V3	25/05/2022	Psychology			Further staff support if required
3.8.6	V3	25/05/2022			Mental Health Support	Further staff support if requiered
7	V3	25/05/2022	Does patient have altered mental state (Delirium)			Wording so it is easier for staff to use and follow

Delirium – WARD AREAS ONLY - Risk Assessment and Management Tool

Policy

For completion by Author			
Author(s) Name and Title:	Dr Fawziya Huq Consultant Liaison Psychiatrist, Jacqui Stratton, Matron, Dr Liz Simon, Principal Clinical Psychologist, Craig Wilson critical care pharmacist		
Scope:	Trust Wide	Classification:	Clinical
Version Number:	4.0	Review Date:	07/11/2025
Replaces:	Delirium Guideline – Version 3 .0		
To be read in conjunction with the following documents:	Trips, Spills and Falls policy. Enteral Feeding and Administration Safeguarding Vulnerable Adults Enhanced Level of Observational Care Managing Violence and Aggression and Anti –Social Behaviour		
Document for public display:	Yes		
Executive Lead	Manoj Kuduvalli		

For completion by Approving Committee			
Equality Impact Analysis Completed:		No	
Endorsement Completed:	Yes	Record of Changes	Yes
Authorised by:	Quality Patient and Family Experience Committee	Authorisation date:	01/03/2024

For completion by Document Control					
Unique ID No:	TC85(12)	Issue Status:	Approved	Issue Date:	14/03/2024
After this document is withdrawn from use it must be kept in archive for the lifetime of the Trust, plus 6 years.					
Archive:	Document Control		Date Added to Archive:		
Officer responsible for Archive:	Document Control Co-ordinator				

Contents

Policy Statement

Delirium is a complex ***neuropsychiatric syndrome*** marked by an acute onset, fluctuating course, altered level of consciousness, inattention, and disorganized thinking. It usually lasts for one to seven days, although it can persist for weeks or months.

Delirium can be thought of as ***acute brain failure*** and may in fact indicate that the person's brain is vulnerable and has diminishing capacity.

Delirium can signal a medical emergency, and its consequences may include:

1. Permanent neurological effects
2. Development or worsening of dementia.
3. Functional and physical decline
4. Transfer to a long-term care facility.
5. Increased risk of death

Delirium develops because of a combination of predisposing factors (e.g., older age, frailty, cognitive impairment) that create vulnerability, and a variety of precipitating factors (e.g., illness, surgery, immobility, noisy environment).

An older person with multiple morbidities and dementia is at high risk for developing delirium. In this case, even small changes in the person's environment or medical condition may trigger the onset of delirium, whereas a healthy adult may only develop delirium after being exposed to several precipitating risk factors.

This policy describes methods of preventing, identifying, diagnosing, and treating delirium.

Patients with delirium are potentially vulnerable to injury and harm during their admission. Therefore, this clinical guideline should be read in conjunction with the Safeguarding Vulnerable Adult policy, Hand Control Mittens Policy and the LHCH policy on Slips, Trips and Falls.

This policy does not cover children and young people (younger than 18 years), people receiving end-of-life care, or people with intoxication and/or withdrawing from drugs or alcohol, and people with delirium associated with these states.

Clinical Features of Delirium

Delirium is reversible and temporary impairment of brain function. It is a syndrome, not a disease and has many causes all of which result in a similar pattern of signs and symptoms. The essential feature is a disturbance of **attention or awareness** that is accompanied by a change in baseline cognition that cannot be explained by pre-existing disorder.

Signs and Symptoms

Disturbances in consciousness:

Consciousness is described as aware of internal and external stimuli. For consciousness, a normal level of arousal is required but not sufficient. It also requires to be able to give appropriate responses to stimuli. Disturbance in consciousness is a cardinal feature of delirium, but it is difficult to describe and examine it. Consciousness shows a continuum from hyper alertness/hyperarousal to coma. In delirium, patients may not be woken up fully and can fall asleep easily, or there could be increased attention with excessive alertness and startle reaction.

Reduced ability to direct, focus, sustain and shift attention:

Impairment in attention is the most characteristic feature of delirium. This can be assessed by observing the ability of the patient following instructions during the medical examination/interview. Patients have difficulty focusing on the stimulus, and the question/stimulus needs to be repeated to get a response. The ability of attention can be objectively assessed by some bedside tests.

Disorientation:

Impairment in orientation is the most common sign of delirium.
Disorientation may occur in time (not knowing what time of day, day of week, month, season, or year), place (not knowing where one is) or person (not knowing who one is). The earliest and most common impairment is seen in temporal. orientation. Disorientation to person is very rare and indicates the seriousness of the condition.

Disorganised thinking and speech:

In most delirious patients, the clarity, consistency, and the speed of speech get impaired. There could be inconsistent flow of thoughts with loosening of associations between the words, sentences, and topics. This is known as disorganised thinking which is observed as a difficulty to understand and inconsistent speech.

Memory disturbances:

Short-term memory problems and difficulties with remembering are common problems in delirium. However, these impairments are temporary and unlike in dementia are due to fluctuations in consciousness and disturbance in attention. Registration of newly learned knowledge in the long-term memory requires high-level concentration which is often impaired in delirium. Recalling old memories does not require concentration which is generally not affected in delirium.

Sleep-wake disturbances:

Due to impairment of circadian sleep cycle, there are sleep-wake rhythm disturbances in most patients with excessive sleepiness during the daytime and increased alertness

at night. Decreased or broken sleep at night could be the first sign of delirium.

Perceptual disturbances:
Hallucinations, misperceptions, illusions, and delusions are reported to occur in at least 40% of cases of delirium. Perceptual disturbances are usually visual but may occur in other modalities. Patients might, for example, misperceive the blood pressure device that a nurse is using as a weapon or a water pipe in the room as snake or folds in bed as various animals. Hallucinations are perceptions without external stimuli. Hallucinations are usually visual, ranging from dreamlike experiences to terrifying visions.

Emotional disturbances:
Emotional changes can last long which can be reported as personality change by others or can be intermittent changes with lability.

Thought content:
There are often **persecutory delusions** in thought content (e.g. they will kill me). Misperceptions (a nurse preparing a medicine can be perceived as if he/she is trying to poison the patient) can lead to these thoughts. Delusions are short-lived and temporary and are not considered as fixed delusions.

Altered psychomotor activity:
Patients with hyperactive delirium show increased alertness and hypervigilance. They can be agitated, disruptive and aggressive. On the other hand, hypoactive ones are sleepy with marked motionlessness and retardation.

Other features:
Higher integrative functions are affected; the result is a reduced ability to plan and solve problems or disrupted sequencing or praxis of actions (e.g., rising from a bed or walking which can lead to injury or falls). Disturbances can also occur in visuospatial abilities and in writing.

1. Roles and Responsibilities

Chief Executive has a duty to ensure that NICE Clinical Guideline 103 is adhered to within the Trust.

The Director of Nursing and Medical Director have a duty to ensure appropriate policy and systems are in place to care for patients who may be at risk delirium or are delirious.

All Managers have a duty to ensure this policy is adhered to in respect of assessing, identifying, and treating all patients who may be at risk of delirium or are delirious and using the guidance and documents set out within this policy.

All medical staff have a duty to ensure the correct assessment, diagnosis and treatments are instigated. Assessment and management of the patient should involve completion of the Delirium Assessment Tool which ensures formal diagnosis with a validated tool, screening for reversible causes, delivery of tailored interventions and reservation of pharmacological intervention for patients in distress or deemed a risk to themselves or others. The diagnosis of delirium, when made, must be recorded in the Problem List on EPR to ensure communication to the patient's GP.

All nursing staff are responsible for ensuring that the Delirium Risk Assessment section of the Risk Assessment document is completed when the patient is admitted to the Trust.

For Ward Staff:

There are 3 areas within EPR for staff to document their risk assessment findings:

- Delirium Risk Assessment (Nursing Admission)
- Delirium parameter (Assessment and Care 2016)
- 4AT Delirium Assessment Tool

Where patients are found to be at risk of delirium or suffering from delirium, all nursing staff have a duty to ensure that a Delirium Risk Assessment (Nursing Admission and Risk Assessment document) is completed within 6 hours of admission, and the Delirium parameter within the Assessment and Care flowsheets completed twice per day. If a patient has had recent change or fluctuation that may indicate delirium, then Ward staff are also required to complete the 4AT Delirium Assessment Tool once a day.

Where completion of the Delirium Risk Assessment and 4AT Delirium Assessment Tool identifies the presence of delirium, they must act, or ensure that this is communicated to medical staff for action if appropriate.

Pharmacists have a responsibility to ensure that, on discharge, any antipsychotic medication that the patient was not admitted on is flagged as a new medication and that there is a documented plan for weaning, cessation or continuation of the drug depending upon the individual case. Where there is no evidence of clear plan this should be raised with the medical team caring for the patient, and unless the drugs are stopped a plan should be put in place.

The specific duties and responsibilities outlined in the policy apply Trust-wide.

Temporary or Agency Staff, Students or any health care worker will be expected to comply with the requirements of all Trust policies applicable to their area of operation.

2. Document Control Standards

All Medical, Nursing, and allied healthcare staff who deliver patient care must be aware of this policy and use it when applicable.

3. Procedure

3.1 Assessment

Patients who are known to have Dementia should have the complex care banner added to EPR, Complex care flowsheets for Dementia should be added to EPR and a reasonable adjustment document completed if required. A mental capacity assessment should be completed if decisions need to be made about treatment and care and this should be managed at ward level unless Safeguarding input is required.

Given the nature of cardiac and respiratory disease with respect to potentially severe illness, and the age group that these diseases effect most patients at LHCH are deemed at risk of developing delirium.

3.2 Indicators of Increased Risk of Delirium

- Age over 65
- Pre-existing diagnosed memory or understanding issues.
- Dementia
- Fractured hip (current)
- Patient considered to be seriously ill (admission to critical care/CCU)

Where one of the above criteria is present, the patient is deemed at risk of developing delirium during their hospital stay. The second part of the Delirium Risk Assessment comprises open questions directed to the patient and any family or carers present during the admission process. Indicators include:

- Impaired cognitive function: e.g., reduced concentration, slow responses, confusion
- Altered perception: e.g., visual, or auditory hallucinations.
- Altered physical function: e.g., reduced mobility, reduced movement, restlessness, agitation, changes in appetite, sleep disturbance.
- Altered social behaviour: e.g., lack of cooperation with reasonable requests, withdrawal, or alterations in communication, mood and/or attitude.

If the patient answers positively to any of the above indicators on admission, or at any other time during their stay at LHCH, this should be highlighted to a healthcare professional trained to assess and diagnose delirium as soon as possible. Further assessment using the Delirium Assessment Tool on EPR should be performed.

3.3 Prevention of Delirium

Where patients are deemed at risk of delirium, but without any current indicators, steps should be taken to reduce the risk of delirium developing. This should be achieved by use of the 4AT Delirium Assessment Tool, which will guide implementation of a group of targeted interventions that have been found to reduce the risk of Delirium.

Nursing staff will observe twice a day for ward areas, all patients for changes or fluctuations in usual behaviour. The patient, a carer or a relative may report these. If any of these behavioural changes are present, a healthcare professional trained in the diagnosis of delirium should carry out a formal clinical assessment to confirm the diagnosis using the Delirium Assessment Tool on EPR

A tailored intervention package to address potential sources of delirium should be delivered by the multidisciplinary team. The 4AT Delirium Assessment Tool should be completed once per day and if any of the factors contributing to development of delirium are found to be present, a summary of tailored interventions that should be offered will be provided within the flowsheet and should be acted upon.

The Delirium tailored Invention package ('PINCHME') addresses the following issues and, where present, provides tailored advice:

Pain
- Assess for pain.
- Consider use of ABBEY pain score or additional tools for those with communication difficulties
- Review pain management
- Escalate if pain control inadequate, consider seeking advice from pain team.
- Review opiate medications and reduce/stop if able.

Infection
- Look for and treat infection, seek medical review if required.
- Avoid unnecessary catheterisation and adopt infection control procedures as per LHCH Policy

Nutrition
- Address poor nutrition and, where applicable, refer to Dietician /Salt Team for advice and support.
- Ensure dentures are available and fit properly.

Constipation
- Assess for constipation and consider addition or escalation of use of laxatives – seek medical review if required.

Hydration
- Ensure adequate access to fluids in line with medical advice, assess reason for dehydration, consider whether physical assistance required, or IV/NG supplementation needed and seek medical review if required.

Hypoxia
- Assess for hypoxia, treat with supplemental oxygen as appropriate and seek medical review.

Medication

- Review medicines with particular attention to polypharmacy
- Ensure any medications which are prescribed for challenging behaviours of delirium are appropriate in rationale, dose, frequency, and time frame as psychotropic medications can often worsen and prolong delirium.
- Review alcohol, substance misuse, smoking history.

Electrolytes
- Assess for and treat electrolyte imbalance.

Environment
  - **Mobility**
- Encourage walking where appropriate (provide walking aids as needed) or full active range of movement exercises with assistance from physiotherapy / Rehab team.
  - **Sensory**
- Ensure hearing aids and visual aids are available and in good working order to those who need them.
- Complex care may be required.
  - **Sleep patterns**
- Reduce noise during sleep periods.
- Avoid medical and nursing interventions during sleep periods.
- Use appropriate level of lighting for time of day.
- Introduce cognitively stimulating activities during waking hours.
- Use of Ear plugs / Eye Masks
  - **Cognition and orientation:**
- Re-orientate in place and time through conversation, use of 24-hour clocks and calendar.
- Appropriate lighting for time of day
- Avoid moving patient between rooms or wards unless necessary.
- Consider use of familiar staff if able
- Ear plugs and Eye masks if requested.

Benzodiazepines, used as a sleep aid, may increase the risk of delirium in some patients and should be avoided. If a short-term term sleep aid is required, a short acting drug such as zolpidem should be first line choice (before zopiclone) and this may have a better risk/benefit profile although all hypnotics can increase falls risk. Night sedation should be used in low dose and titrated to effect and should not be prescribed regularly or for long periods of time.

No pharmacologic intervention (for example, haloperidol) has been shown to reduce the incidence of delirium in at risk groups, and as such prophylactic therapy should not be started.

Information and practical guidance with regards to prevention, diagnosis, and management of patients with delirium can be found in Appendix 1 - Delirium Help Sheet.

3.4 Assessment Tools

Where a patient is thought to be showing signs of delirium in the ward area, assessment by a medical practitioner trained in the diagnosis and management of delirium should be performed. This should be guided by, and recorded within, the EPR document Delirium Assessment Tool.
Details of this and step-by-step in the patient instructions on completion are also held within the Delirium Assessment Tool (4AT).

For Ward Staff:

Nursing staff within the Ward Areas should perform a Delirium Risk Assessment twice a day, ideally within 6 hours of the morning, and night shift. If the patient has an altered mental state this should be recorded within the 4AT Delirium Assessment Tool within 24 hours (once per day). (Appendix 3) Precipitants of delirium will also be screened for within this tool to try to reduce the risk of delirium developing, and tailored interventions will be recommended.

Upon completion of Delirium Risk Assessment Tool, the diagnosis of delirium, if present, will be confirmed. The results must be documented within the EPR document Delirium Assessment Tool and communicated to the medical team leading the patients care. Ongoing management of the patient is described below and will also be presented as a guide to clinicians within the Delirium Assessment Tool. (Appendix 3)

Discharges to Ward Areas:

For those patients at risk of delirium or who have had an episode of delirium, the patient should be cared for by a team of healthcare professionals who are familiar to the person at risk. Avoid moving patients within and between wards or rooms unless necessary. If the patient is to be discharged from Critical Care this decision will be made and agreed by the intensivist; ANP; Nurse in Charge and Staff Nurse. This will be discussed at the daily bed meeting with the Hospital Coordinators and Divisional Matrons/Ward Managers. This is to maintain the patient's safety in a more orientated environment to continue their post-operative recovery. This acts in the patient's best interest for their enhanced level of care, 1.1. The ward areas are now implementing a role responsible for toilet monitoring.

Prior to discharge a Long-Term Discharge Plan is sent out to ward managers, Divisional Matrons, outreach, hospital coordinates of the patients complex needs and if required enhanced Level of Care (1.1.).

On discharge from CCA a transfer summary on EPR will document patients psychological state and specifically plan of care is documented.

On arrival to ward area staff perform a bed side handover using Critical Care Bedside handover. (This including ward to ward transfers).

3.5 Treatment

If there is difficulty distinguishing between delirium and dementia, or delirium superimposed on dementia, treat for delirium first.

The mainstay of the management of patients with delirium is non-pharmacological. **Antipsychotic medications should NOT be used unless de-escalation techniques are ineffective or inappropriate.** This group of drugs have a significant range of side effects and should therefore only be used for short periods and only if the patient is deemed to be at risk to self or others.

3.5.1 Identification of Underlying Cause

A key principle of delirium treatment is the identification and management of the underlying cause, or combination of causes, of delirium. A diagnosis of delirium should prompt a thorough review of the patient, medicines, and environment, as guided by the Delirium Assessment Tool on EPR. This will guide the medical professional through some of the common precipitants of delirium and will provide some guidance regarding tailored interventions that may reduce the severity and duration of the delirium episode. The precipitants and interventions are the same as those listed in the section on Prevention of Delirium above.

The Delirium Assessment Tool may be completed on more than one occasion, should the clinical presentation of the patient change. Staff may also wish to refer to the Delirium Help Sheet (Appendix 1) for further information on non-pharmacological management of delirium.

It is the responsibility of both medical and nursing staff that movement of patients with delirium both within and between wards or rooms is avoided unless necessary. Also, where feasible, these patients should be cared for by healthcare professionals that are familiar to them.

Both medical and nursing staff should ensure effective communication and constant reorientation of the patient. Reorientation today, date, time and place and the healthcare professional's role should occur frequently. Reassurance should be provided to the patient. Medical and nursing staff should involve family, friends and carers with reorientation and reassurance regarding the management of the patients care. Families should be provided a Delirium Patient and Family Information Leaflet to assist in this.

3.5.2 An Approach to De-escalation

The de-escalation of an agitated patient can be challenging for medical and nursing staff. Effective de-escalation can reduce the requirement for pharmacological intervention but there is little agreement on the recognised techniques that should most effectively be used. Appendix 1 gives some advice on approaches to these patients. In addition, the recently developed English modified De-escalation of Aggressive Behaviour Scale (EMDABS) provides a more validated approach, although mainly within the in-patient mental health arena. Some of the features of the EMDABS are listed below. Not all aspects will be applicable to all circumstances but can be used selectively as the situation requires.

- Acknowledge the patients concerns.
- Try not to argue with the patient – to them, their hallucinations and disorientation may be very real, and they may become more distressed if there is repeated challenging of this. Try to gently re-orientate the patient in time and place but if there are signs that the patient is becoming antagonised further by this, try alternative methods to calm them as below.
- Talk about their concerns and anxieties.
- Try to reduce fear by providing distraction.
- Remain calm – try to maintain a calm tone of voice, give the patient one voice to focus on and at a volume that is suitable for the patients hearing. If the presence of several members of staff in the room, all talking at once and over each other, is occurring, this can create a stressful and distressing environment that may add to the delirium.
- Behaviour charts (see appendix 2) can also be helpful in identifying when and why agitated behaviours may occur.

3.6 Management of Severely Distressed or Agitated Patients

Management of the patient diagnosed with delirium should primarily be to treat the underlying cause(s) where applicable, non-pharmacological and efforts should be

made to reassure and de-escalate the situation where able. Pharmacological management should be reserved for patients whose symptoms of delirium would threaten their own safety or the safety of other persons or would result in the interruption of essential therapy.

There is no consistent evidence that any pharmacological treatment reduces the duration of a delirium episode, and the psychoactive properties of psychotropics could worsen or prolong delirium.

For ward patients, the second-generation antipsychotic agent **quetiapine** is to be used as the first line treatment, or **haloperidol** where an intravenous or intramuscular preparation is required. Advice on dosing and titration can be found in Appendix 4 – Drug Management of Delirium in Ward Patients. Quetiapine has been shown to display the lowest incidence of extrapyramidal side effects and should therefore be used as the first line treatment where the oral route is available. Caution should be exercised to avoid over-sedation and the dose should be titrated slowly and then reduced/stopped if there is a concern regarding this. Patients can also exhibit orthostatic hypotension which should be considered when mobilising them.

It should be noted that NICE guidelines updated their guidance in 2023 reflecting that Haloperidol is the only licensed antipsychotic for acute delirium where nonpharmacological management has been ineffective. However due to its cardiac effects, it is often not appropriate as first line for the cohort of patients at LHCH unless in extremis where IV/IM preparations are required.

All medications used in this context have sedating effects and staff should be alert to the potential occurrence of this and reduce/stop medication as soon as possible.

Antipsychotic medications started during admission to LHCH should be weaned and stopped prior to discharge. If this is not possible, or where the dose is weaning at the time of discharge, clear advice for the patient's GP on cessation of treatment should be provided. Where the patient is transferred to another Trust to continue their care, it should be clearly communicated that the antipsychotic medication is newly prescribed during this admission and ongoing review of its requirement should be performed.

Antipsychotics should be used with caution or not at all in patients with Parkinson's disease and in Lewy-Body dementia as the dopamine blockade can worsen their symptoms of Parkinson's. In these patient's agitation may be managed with benzodiazepines, as per guidance in Appendix 5 – Management of Delirium in Patients with Parkinson's Disease or Lewy Body Dementia or severe cardiac dysfunction. Where control is inadequate in this patient group, guidance should be sought from the patient's neurologist or mental health liaison team (MHLT) who may agree to a trial of oral quetiapine, as this second-generation antipsychotic drug is associated with the lowest incidence of extrapyramidal side effects. If a trial of this is planned, patients should particularly be monitored for any reduction in motor function, over sedation and orthostatic hypotension.

Review symptoms of delirium regularly as guided by the Delirium Risk Assessments and, if symptoms persist, re-evaluate for underlying causes and the possibility of dementia.

3.6.1. Benzodiazepines

These drugs can paradoxically increase agitation by way of disinhibition. Their use may prolong or worsen the course of delirium and in older patients with respiratory co-morbidities

who have undergone surgery respiratory depression becomes a risk. Therefore, benzodiazepines should not be used as first line therapy in the treatment of delirium and should be reserved for the cases in which clinical circumstances limit use of antipsychotics.

3.6.2 Sedation in Emergency Situations

Rarely there may be circumstances where delirium is severe, and the patient is an imminent threat to the safety of themselves or those around them e.g., trying to leave the hospital or displaying a high level of aggression. In these circumstances the use of a benzodiazepine via either an IV or IM route may be required. Advice on dosing is provided within Appendix 9 – Sedation in the Emergency Situation.

All patients that receive IM or IV benzodiazepines will require a period of enhanced monitoring to ensure that there is not excessive sedation that could lead to cardiorespiratory compromise. Where IM or IV benzodiazepines are required, in addition to immediate review by the medical team/ANP managing the patient, there should be immediate referral to and review by the Outreach Team during the day, and the Hospital at Night Team during the night. Monitoring of this patient group can be very challenging but as a minimum there should be assessment of respiratory rate and ideally oxygen saturation every 5-10 minutes.

Suggested doses are included in Appendix 6, along with expected times of onset depending on the route of administration. To avoid over-sedation, the smallest possible dose should be administered and titrated to effect, giving sufficient time for onset to occur before additional doses are administered.

Where the maximum dose advised by the treatment algorithm has been administered without sufficient effect and within the expected onset time, assistance from the Critical Care on-call team should be sought.

Once the safety of the patient has been confirmed, there should be assessment for any reversible causes of delirium and a tailored package of interventions should be utilised. Plans for ongoing management of delirium should be made, along with plans for pharmacological management, ideally with an oral preparation.

3.7 Sleep and Delirium

Sleep deprivation is a major contributor to the development of delirium.

If patients are deemed at risk of delirium or are suffering an episode of delirium the following are essential

- Reduce noise during sleep periods.
- Avoid medical and nursing interventions during sleep periods.
- Try to group any interventions together so that repeated disturbance of the patient is limited.
- Use appropriate level of lighting for time of day.
- Introduce cognitively stimulating activities during waking hours e.g., newspaper, radio, books.

Ideally pharmacological sleep aids should be avoided as they may increase the incidence and severity of delirium. Where, despite the above, the patient is struggling to sleep at night and particularly if the patient is being managed in the critical care environment where there is more

significant loss of day/night differentiation and circadian rhythm, consider the use of **melatonin**.

3.8 Support

3.8.1 Medical emergency Team (MET)

When dealing with acute episodes of delirium or aggressive behaviour where a patient is a risk to themselves, or others (patients or staff) escalate to the MET team stating Delirious / Aggressive Patient

3.8.2 Outreach Team and Hospital @ Night Team

The Outreach team and ANPs are available to provide support in the diagnosis and management of patients with delirium during the daytime. Overnight, the Hospital @ Night team are responsible to ensure patients who have had delirium are handed over to ensure support for ward staff is available if required.

3.8.3 Psychology Team

Consider a referral to psychology in the following circumstances:

- Where the acute phase of delirium has resolved, and the patient may benefit from psychological input linked to distressing memories (dreams/memories/flashbacks) of the delirium (and consents to the referral).
- For staff advice and support around understanding/managing challenging behaviour linked to the patient's lived experience of delirium.
- Where the underlying causes of delirium have been assessed and treated yet the delirium is prolonged. In this instance it may be beneficial to refer for further neuropsychological assessment (e.g.: considering dementia v delirium overlap/pre-existing cognitive factors/stroke etc) and where family may benefit from support).

Referrals should be actioned via the "Clinical Health Psychology" orders on EPR. Or where this is not possible, please contact 0151 600 1340. We will aim to respond to the referral within 48 hours within the working hours (Critical care cover Tues-Thurs; ward support cover Monday- Friday).

3.8.4 Security Team

Security Team can be contacted on Ext 1999 to assist with and support if any patient is violent and aggressive.

Also, staff should speak to nurse in charge, ward manger, Matron, Hospital coordinator or hospital manager on call for support and guidance.

3.8**.** 5 Reporting Incidents to Police

Any incidents of assault or abuse towards staff are unacceptable. The reporting of such incidents to Merseyside police is always an option, considering the severity of the incident, and the wishes of those involved. Each case should be judged on the circumstances occurring at the time, and the impact the incident has had on staff or others involved.

3.8.6 Mental Health Liaison Team (MHLT)

Consider a referral to the Mental Health Liaison Team in the following circumstances:

- Diagnostic uncertainty whether someone is presenting with delirium or not.
- Significant agitation/distress during delirium or unresolved delirium (following ITU/ward Consultant MDT discussion) not responding to non-pharmacological de-escalation and pharmacological management initiated by ward team.
- Cognitive impairment presenting with challenging behaviours requiring diagnosis and/or pharmacological management.
- Patients with comorbid pre-existing or new onset mental health issues impacting on current presentation
- Risk assessment where appropriate
- Training regarding mental illness and risk management

Referrals should be actioned via the “Mental Health” orders on EPR Monday-Friday. MHLT will aim to respond to the referral within 24 hours. For urgent queries out of hours including weekends, contact on call Psychiatrist via 0151 250 3000.

3.9 Safeguarding

Patients with Delirium do not require routine referral to Safeguarding unless input is required from the Safeguarding team, for example if a mental capacity assessment has shown the patient to lack capacity and there are restrictions in place for e.g. Nursed 1:1, trying to leave (not in critical care). If a DoLs application meets the threshold, the Safeguarding team can send this to the local authority and ensure least restrictive measures are in place.
If the patient is at risk to themselves or others the Safeguarding team can review the patients care and treatment and liaise with family if required.
The Safeguarding team can assist with patients who have delirium and best interest meetings may need to take place if the patient is unable to make decisions for themselves or if an Independent Mental Capacity Advocate (IMCA) is required.

3.10 Information for Patients and Families

An information leaflet “What to expect following surgery: inpatient information” (APPENDIX 7), which highlights delirium as a possible risk factor post-surgery, should be offered and discussed to all patients, family and friends when visiting for a Preoperative appointment. Also, where a patient has an episode of Delirium as an inpatient a “Delirium: information for patients and families” leaflet (APPENDIX 8) should be offered to: 1) the patient’s family initially and 2) to the patient themselves once the acute delirium is resolving. This would be then documented on EPR. A prompt to remind clinicians to provide this information is given in the Delirium Assessment Tool. The information leaflet should be complimented with staff discussion with the family/patient about delirium using the PINCHME guidance to help normalise and reassure. Where the patient is displaying any signs of post-delirium distress linked to frightening memories of the acute delirium a referral to psychology should be actioned (with the patient’s consent).

The LHCH information leaflets above can be downloaded from the hospital internet and intranet site.

3.11 Discharge

The diagnosis of delirium must be included in the discharge letter. As a minimum, the episode of delirium should be recorded within the Problem List on EPR, and additional details recorded within the text of the discharge letter as appropriate. A prompt for the episode of delirium to be recorded within the Problem List on EPR is included within the Delirium Assessment Tool. Where delirium is ongoing, or concern about the long-term diagnosis (delirium or dementia) exists, adequate discharge planning should involve the General Practitioner and the discharge planning team, along with the clinical team with a view to involving the community elderly mental health services or memory clinic. In some cases, the Mental Health Liaison Team may consider inpatient dementia assessments if indicated e.g., if it will help with discharge planning, however generally it is inadvisable until the patient has had a period to recover following the original delirium.

Where patients have been commenced on antipsychotic medication during their admission, the appropriateness of continuing medication at discharge must be considered. In most cases, it is expected that clinical teams will review the requirement for such medicines daily and will gradually wean the dose and then stop the medication prior to discharge. Where this is not possible, either due to the imminent discharge or transfer of the patient to an alternative medical facility, the discharge or transfer letter should clearly state the plan for weaning, discontinuing, or continuing the medication as appropriate. Where the decision to continue antipsychotic medication started at LHCH is made, this should be clearly communicated to the patient's GP.

4. Policy Implementation Plan

The drug treatment algorithms will be submitted to the Drugs and Therapeutics Committee for approval. Following this the policy will be submitted to all Divisional Governance groups for information and approval.

This policy will be implemented throughout all clinical areas by the.

- Medical Director
- Associate Medical Directors
- Clinical Leads
- Assistant Directors of Nursing to all Clinical Areas.
- Divisional Matrons
- Ward / Department Managers will implement this policy within their areas of responsibility.

The policy will be disseminated via clinical governance meetings, ward managers, safety huddles, group teaching sessions and one-to-one teaching of key groups including the Outreach, Hospital at Night teams and Safety Lead Nurse. Where there are specific difficulties in the management of patients, advice can be sought directly from Clinical Leads.

Effective application of the policy will be achieved with assistance from EPR documents that will guide the user through the assessment and management of the patient as described. Regular feedback on the effectiveness of the EPR documents will be sought and they will be updated as required to maintain their effectiveness.

5. Monitoring of Compliance

Regular auditing of compliance with the policy will be performed by the Clinical Leads for Delirium and results of this will be disseminated and used to assess and then improve practice according to the NICE Quality Standards. The use of the Delirium Assessment and Management Tool will allow assessment of the incidence of delirium within the ward setting, along with compliance with all other aspects of the policy according to the current NICE quality standards.

Use of Facilities board to monitor whether a patient has a positive episode of Delirium and has completed Delirium in Risk assessment tool has been completed. Weekly data will be sent to Matrons monitor compliance and monthly data will be discussed at Senior Nurse meeting.

6. References

Bathula M, Gonzales JP, The pharmacological treatment of intensive care unit delirium: A systematic review, Annals of Pharmacotherapy 2013; 47: 1168-1174

British Geriatrics Society and Royal College of Physicians, *Guidelines for the prevention, diagnosis and management of delirium in older people*. *Concise guidance to good practice series, No 6*. London: Royal College of Physicians; 2006.

Joint Formulary Committee. *British National Formulary* (online)

Burns A, Gallegly A and Byrne J. Delirium. *Journal of Neurology, Neurosurgery and Psychiatry 2004. 75; 362367.*

Devlin JW et al., Efficacy and safety of quetiapine in critically ill patients with delirium: A prospective, multicenter, randomized, double-blind, placebo-controlled pilot study, Critical Care Medicine 2010; 38: 419-427

Ely, et al. *JAMA 2003; 289:2983-2991*.

Ferreira R v HM Senior Coroner for Inner South London and others [2017] EWCA Civ 31

Fernandez HH, Tri Eschmann ME, Friedman JH, Treatment of psychosis in Parkinson's disease: safety considerations, Drug Safety 2003; 26: 643-59

Groen JA et al, Treatment of delirium following cardiac surgery, Journal of Cardiac Surgery 2012; 27: 589-593

Hakim SM et al., Early treatment with risperidone for subsyndromal delirium after on-pump cardiac surgery in the elderly, Anesthesiology 2012; 116: 987-997

Hawkins SB et al., Quetiapine for the treatment of delirium, Journal of Hospital Medicine 2013; 8: 215-220

Inouye SK, van Dyck CH, Alessi CA, et al: Clarifying Confusion: the Confusion Assessment Method: *A New Method for Detection of Delirium. Ann Intern Med 113:941-948,1990*

Inouye SK. Delirium in Older Persons. *The New England Journal of Medicine 2006; 354:11571165.*

Kalisvaart KJ et al. Haloperidol Prophylaxis for elderly hip surgery patients at risk for delirium: a randomised placebo-controlled study. *Journal of the American Geriatrics Society 2005; 53: 16581666.*

Kishi T, Hirota T, Matsunaga S, Iwata N, Antipsychotic medications for the treatment of delirium: a systematic review and meta-analysis of randomized controlled trials, Journal of Neurology, Neurosurgery and Psychiatry 2016; 87: 767-774

Mavandadi V, Bieling PJ, Madsen V, Effective ingredients of verbal de-escalation: validating an English modified version of the “De-Escalating Aggressive Behavior Scale”, Journal of Psychiatric and Mental Health Nursing 2016; 23: 357-368

Mu JL et al., Pharmacological agents for the prevention and treatment of delirium in patients undergoing cardiac surgery: systematic review and metanalysis, Critical Care Medicine 2015; 43: 194-204

NICE guidelines Delirium: prevention, diagnosis and management in hospital and long-term care (2022) CG103

Rudolph JL and Marcantonio ER. Postoperative Delirium: Acute Change with Long-term Implications*. Anaesthesia and Analgesia 2011; 112: 1202-1211*

Serafim RB et al., Pharmacologic prevention and treatment of delirium in intensive care patients: A systematic review, Journal of Critical Care 2015; 30: 799-807

Sessler, et al. *AJRCCM 2002 ; 166:1338-1344.*

Skrobik YK et al. Olanzapine vs haloperidol: treating delirium in a critical care setting. Intensive Care Medicine 2004; 30: 444-449
Tahir TA et al., A randomized controlled trial of quetiapine versus placebo in the treatment of delirium, Journal of Psychosomatic Research 2010; 69: 485-490

Taylor et al. The Maudsley Prescribing Guidelines in Psychiatry. 14th ed. John Wiley and sons 2021.

Vardy ERLC, Teodorczuk A, Yarnall AJ, Review of delirium in patients with Parkinson’s disease, Journal of Neurology 2015; 262: 2401-2410

Vilke GM et al., Excited delirium syndrome: Treatment options and considerations, Journal of Forensic and Legal Medicine 2012; 19: 117-121

7. Appendices

APPENDIX 1

Delirium Help Sheet

PROBLEM	GOAL	ACTION	RATIONALE
Patient <u>at risk</u> of delirium/ confusion and may present with alterations in any of the following: <u>Cognitive function</u>: e.g., worsened concentration, slow responses, confusion. <u>Perception:</u> e.g., visual or auditory hallucinations. <u>Physical function:</u> e.g., reduced mobility, reduced movement, restlessness, agitation, changes in appetite, sleep disturbance. <u>Social behaviour:</u> e.g., lack of cooperation with reasonable requests, withdrawal, or alterations in communication, mood and/or attitude.	**To have a calm and well rested patient who is orientated to time and place, and to identify and treating any underlying causes of confusion/delirium**.	**<u>Ensure the following.</u>** • Lighting levels appropriate for time of day. • Regular and repeated (at least 3 times daily) cues to improve personal orientation. • Use of clocks and calendars to improve orientation. • Hearing aids and spectacles should be available as appropriate and in good working order. • Continuity of care from nursing staff. • Encouragement of mobility and engagement in activities and with other people. • Approach and handle gently. • Elimination of unexpected and irritating noise (e.g. pump alarms). • Regular analgesia • Encouragement of visits from family and friends who may be able to help calm the patient. Explain the cause of the confusion to relatives. Encourage family to bring in familiar objects and pictures from home and participate in rehabilitation. • Fluid intake to prevent dehydration (use subcutaneous fluids if necessary) -Avoid constipation with good diet, fluid intake and mobility. • Adequate CNS oxygen delivery (use supplemental oxygen to keep saturation above 95% unless patient has COPD). • Good sleep pattern • Provide environmental and personal orientation. • Encourage mobility. • Maintain a good sleep pattern. • Avoid complications (immobility, malnutrition, pressure sores, over sedation, falls, incontinence) • ***<u>Avoid</u>*:** • *inter- and intra-ward transfers* • *use of physical restraint* • *constipation* • *anticholinergic drugs where possible and keep drug treatment to a minimum.* • *catheters where possible*	Patients nursed in a good sensory environment and with a reality orientation approach, and with involvement of the multidisciplinary team help reduce the likelihood of confusion/delirium. Optimum physical health reduces the likelihood of delirium/confusion
Patient may become agitated due to confusion/delirium and become a danger to themselves and others	**Prevent harm and reduce agitation**	**<u>Ensure the following.</u>** • Inform medical staff immediately. • Consider drug sedation.	Drug sedation may be necessary: - to carry out essential investigations/treatment -to prevent patient endangering themselves or others -to relieve distress in a highly agitated/hallucinating patient.

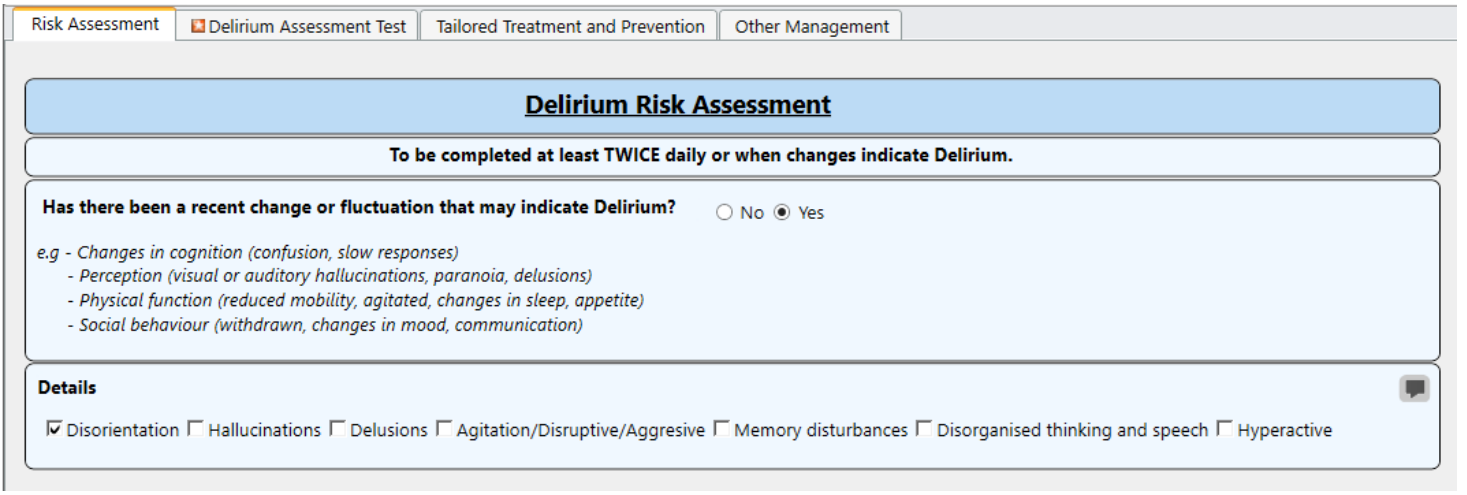
Complications of confusion/delirium The main complications of delirium are: falls pressure sores nosocomial infections functional impairment continence problems over-sedation malnutrition.	**Prevention of complications**	**Ensure the following.** • ensure the Trust's Slips, Trips and Falls policy is adhered to • Ensure pressure areas are assessed and managed in line with Trust policy. • Record MEWS score at least 4 hourly or as indicated. Ensure Sepsis care bundle is followed. • Ensure that there is a daily multidisciplinary review. • A full continence assessment should be carried out. Regular toileting and prompt treatment of urinary tract infections may prevent urinary incontinence. Catheters should be avoided where possible because of the increased risks of trauma in confused patients, and the risk of catheter associated infection. • Refer to dietician and complete MUST tool as per Trust policy.	Adhering to STF policy will prevent falls. Adhering to Trust policy for pressure areas will reduce the likelihood of pressure sores. Early identification & treatment of infection will prevent episodes of confusion/delirium. Episodes of incontinence increase the likelihood of delirium/confusion. Food alternatives that consider the patient's preferences, and the option of finger foods should be considered. Adequate staffing levels should be ensured to support and encourage eating. Oral nutritional supplements can be considered.
Wandering **Patient may wander with potential to cause harm**	**Prevent harm to patient and others**	**Ensure the following.** • patient always requires close observation. • encourage next of kin and family to communicate with patient. • consider where the patient should be nursed i.e., side room, small bay. • seek advice of medical staff	Attempts should be made to identify and remedy possible causes of agitation. If the cause of the agitation cannot be remedied, the next least restrictive option is to try distracting the agitated wandering patient. Relatives could be encouraged to assist in this kind of management. The use of restraints or sedation should only be used as a final option.
Rambling speech	**To have meaningful communication**	**Ensure the following.** • Talk to the patient as a rational person who is having unusual experiences. • Emphasise that they are in hospital; that they are safe. • Acknowledge the feelings expressed – ignore the content.	Patients with delirium often exhibit confused and rambling speech. It is usually preferable not to agree with rambling talk, but to adopt strategies, depending on the circumstance
Psychological distress.	**To reduce the psychological effects of delirium**	**Ensure the following:** • Education about delirium with family and carers involved in the patient's care is vital. • Discussion with the patient about the risk of delirium; causes and incidence (pre-op) and post-delirium distress discussions post-op. • Increased family visits to help calm and reorientate • Use of the IPAT tool by outreach on step down to the ward to identify those at risk of on-going distress. • Discharge summaries highlighting the presence of delirium to the GP. • Telephone follow up for those scoring high on IPAT 2 months post-discharge for screening for ITU post-discharge clinic.	As with all older people discharge should be planned in conjunction with all disciplines involved in caring for the patient, both in hospital and in the community (including informal carers). Practical arrangements should be in place prior to discharge for activities such as washing, dressing, medication etc. in accordance with the joint statement of the British Geriatrics Society and the Association of Directors of Social Services.

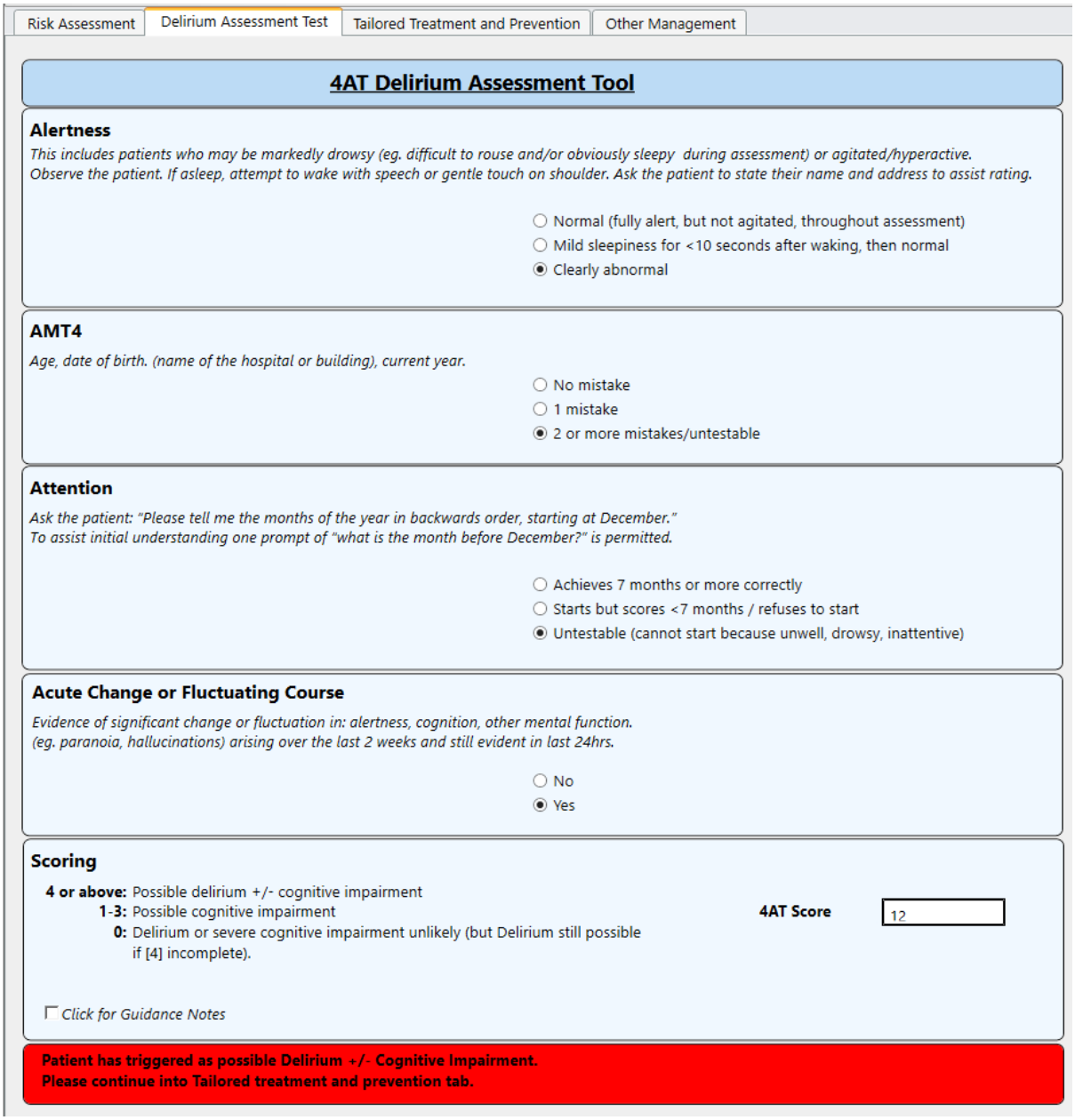
APPENDIX 2

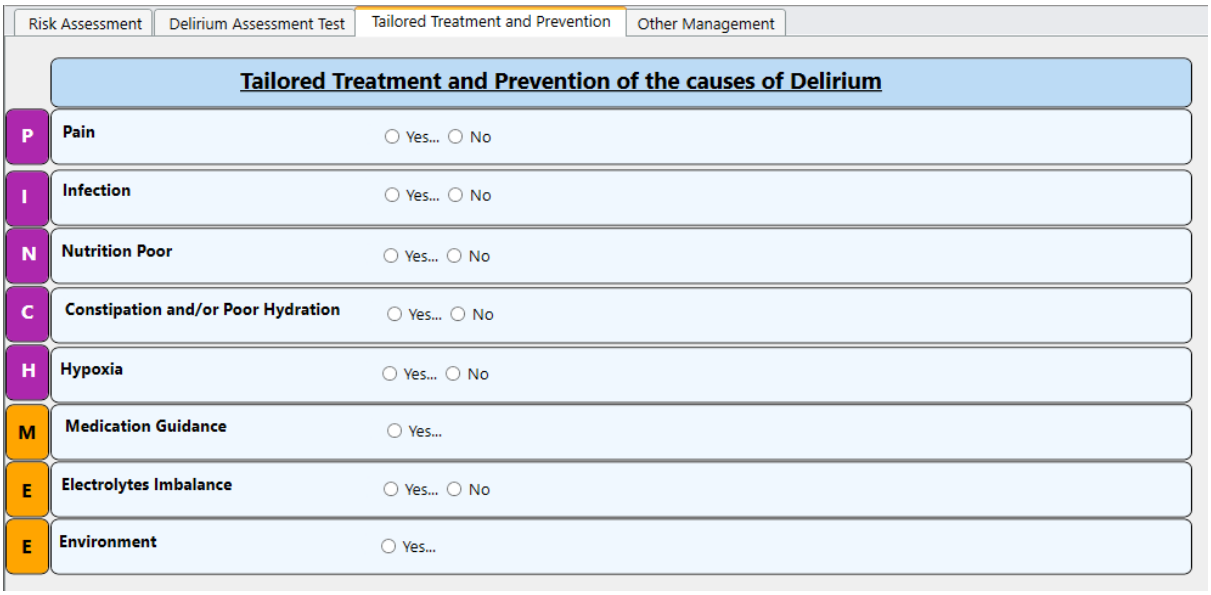
Behaviour charts - LHCH_.docx

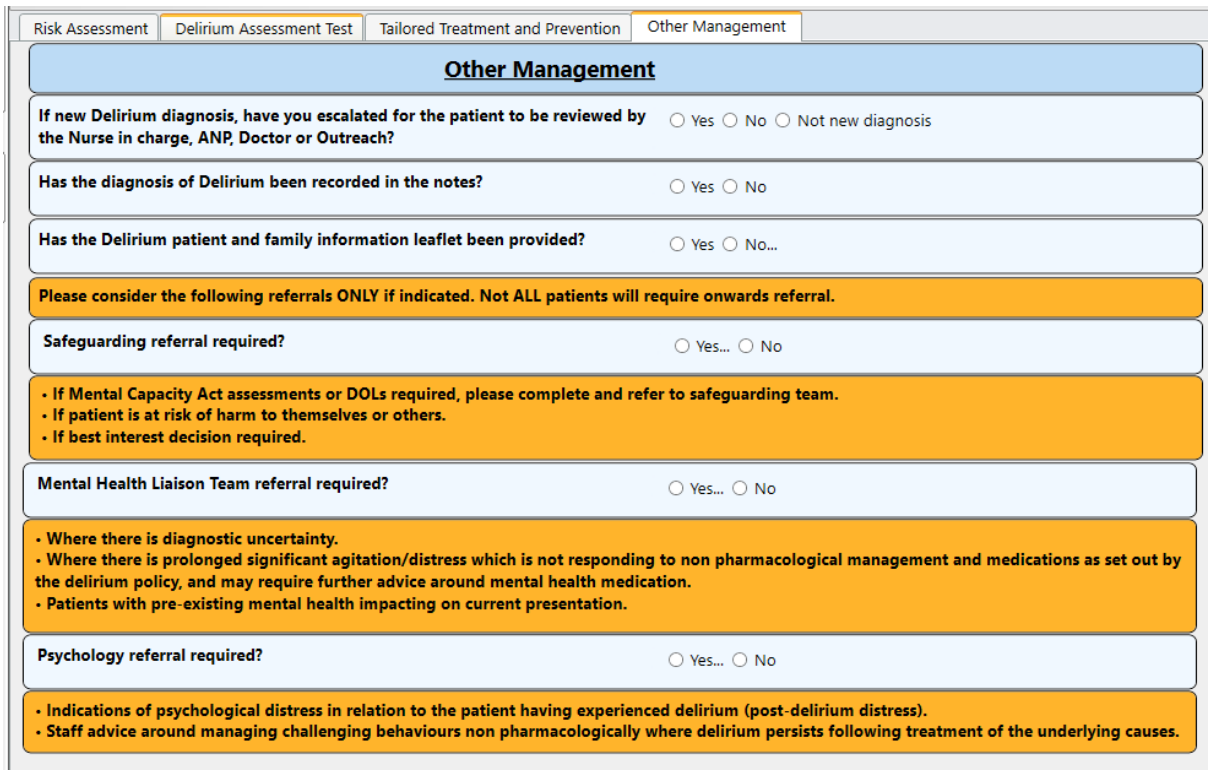
APPENDIX 3

WARD AREA DELIRIUM RISK ASSESSMENT




Risk Assessment
Delirium Assessment Test
Tailored Treatment and Prevention
Other Management
4AT Delirium Assessment Tool
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)
Mild sleepiness for <10 seconds after waking, then normal
Clearly abnormal
AMT4
Age, date of birth. (name of the hospital or building), current year.
No mistake
1 mistake
2 or more mistakes/untestable
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
Starts but scores <7 months / refuses to start
Untestable (cannot start because unwell, drowsy, inattentive)
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 last 24hrs.
No
Yes
Scoring
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] incomplete).
4AT Score
12
Click for Guidance Notes
Patient has triggered as possible Delirium +/- Cognitive Impairment.
Please continue into Tailored treatment and prevention tab.


Risk Assessment
Delirium Assessment Test
Tailored Treatment and Prevention
Other Management
Tailored Treatment and Prevention of the causes of Delirium
P
Pain
Yes... No
I
Infection
Yes... No
N
Nutrition Poor
Yes... No
C
Constipation and/or Poor Hydration
Yes... No
H
Hypoxia
Yes... No
M
Medication Guidance
Yes...
E
Electrolytes Imbalance
Yes... No
E
Environment
Yes...


Risk Assessment
Delirium Assessment Test
Tailored Treatment and Prevention
Other Management
Other Management
If new Delirium diagnosis, have you escalated for the patient to be reviewed by the Nurse in charge, ANP, Doctor or Outreach?
Yes No Not new diagnosis
Has the diagnosis of Delirium been recorded in the notes?
Yes No
Has the Delirium patient and family information leaflet been provided?
Yes No...
Please consider the following referrals ONLY if indicated. Not ALL patients will require onwards referral.
Safeguarding referral required?
Yes... No
• If Mental Capacity Act assessments or DOLs required, please complete and refer to safeguarding team.
• If patient is at risk of harm to themselves or others.
• If best interest decision required.
Mental Health Liaison Team referral required?
Yes... No
• Where there is diagnostic uncertainty.
• Where there is prolonged significant agitation/distress which is not responding to non pharmacological management and medications as set out by the delirium policy, and may require further advice around mental health medication.
• Patients with pre-existing mental health impacting on current presentation.
Psychology referral required?
Yes... No
• Indications of psychological distress in relation to the patient having experienced delirium (post-delirium distress).
• Staff advice around managing challenging behaviours non pharmacologically where delirium persists following treatment of the underlying causes.

APPENDIX 4

Management of Hyperactive Delirium in Ward Patients

- **Drug treatment should only be used after reviewing for reversible causes, employing de-escalation techniques and only if the patient is severely distressed or deemed a risk to themselves or others.**
- **Rationale must be clearly documented why pharmacological management was required.**
- **All patients receiving antipsychotic medication for delirium should undergo daily ECG monitoring of QTc duration to monitor QTc prolongation if practical.**
- **Do not use in patients with Parkinson's disease or Lewy body dementia.**
- **In elderly patients, always start at lower dose and titrate cautiously, 'start low, go slow'.**
- **If very poor cardiac function, high doses required, on multiple psychotropics or ineffective response, consider MHLT referral for advice.**
- **Consider IV/IM preparations given under senior guidance.**

1st Line – Second generation Antipsychotic

Quetiapine 12.5-25mg OD-BD PO/NG, titrated by 12.5-25mg every 24 hours, if required, to maximum dose of 100mg total/24h. If exceeding dose of 100mg/24h, consider seeking expert advice from MHLT.

As a general guide, once challenging behaviours are settled for at least 24-48 hours (although may require longer if has been on psychotropics for a significant period), reduce quetiapine in increments of 12.5-25mg every 24-48 hours. Monitor for rebound agitation in between dose reductions, and if remains settled continue with next weaning increment.

2nd Line – Rescue therapy for significant agitation where oral preparation inappropriate/ not tolerated, consideration of senior guidance.

Haloperidol 0.5mg-2.5mg IV/IM titrated in 0.5mg aliquots over 30 minutes to ensure safety. In elderly and frail, the maximum is up to 5mg/24 hours and for adults up to 12mg/24 hours. Where treatment found to be effective, but repeated dosing required consider referral to MHLT to guide on regular titration.

As per NICE guidelines, aim for low doses of Haloperidol and titrate to effect. The maximum dose should only be considered for those particularly challenging and caution in cardiac patients.

APPENDIX 5

Management of Delirium in Patients with Parkinson's Disease or Lewy Body Dementia or severe cardiac dysfunction

- **Drug treatment should only be used after reviewing for reversible causes, employing de-escalation techniques and only if the patient is severely distressed or deemed a risk to themselves or others.**
- **Rationale must be clearly documented why pharmacological management was required.**
- **This group of patients should not receive antipsychotics without advice as this may exacerbate their motor dysfunction.**
- **All patients should immediately refer to, and reviewed by the medical team/ANP involved in the patient's care, along with either a member of the Outreach Team or Hospital @ Night Team**
- **Use cautiously if a history of respiratory illness as there is a risk of respiratory depression.**
- **Consider MHLT referral for advice.**
- **Consider IV/IM preparations under senior guidance.**

IV Lorazepam 0.5-2mg, titrate to effect in 0.5mg IV aliquots every 5-10 minutes until safety achieved. Maximum 4mg/24h

IM Lorazepam 0.5mg-2mg, titrate to effect in 0.5mg aliquots, may take up to 30 minutes for onset. Maximum 4mg/24h

Please note, these doses should be adjusted for elderly in line with BNF, Lorazepam IV/IM 0.5mg-1mg, maximum 2mg/day.

To avoid over-sedation, the smallest possible dose should be administered and titrated to effect, giving sufficient time for onset to occur before additional doses are administered.

Monitoring of this patient group can be very challenging but as a minimum there should be assessment of respiratory rate and ideally oxygen saturation every 5-10 minutes.

Where control is inadequate or delirium recurs, seek advice from neurologist or MHLT who may advocate trial of quetiapine.

APPENDIX 6

Management of Patients with Severe Agitation requiring Rapid Sedation

- **ONLY TO BE USED FOR SEVERE AGITATION WHERE DE-ESCALATION TECHNIQUES AND FIRST/SECOND LINE INTERVENTIONS HAVE FAILED AND THE PATIENT IS AT RISK OF IMMEDIATE SIGNIFICANT HARM**
- **The patient must be referred for immediate senior medical/ANP review, and the Outreach or H@N Team should be informed and must review and monitor as per policy**
- **Use cautiously if a history of respiratory illness as there is a risk of respiratory depression.**
- **Consider IV/IM preparations given under senior guidance. Assistance from critical care on call medical team may be required**

IV Lorazepam 1-4mg, titrate in 1mg IV aliquots every 5 minutes until safety achieved.

IM Lorazepam 1mg-4mg, may take up to 30 minutes for onset.

Please note, these doses should be adjusted for elderly in line with BNF, Lorazepam IV/IM 0.5mg-1mg, maximum 2mg/day.

OR

IV Midazolam 1-5mg, titrate in 0.5-1mg IV aliquots every 5 minutes until safety achieved.

IM Midazolam 2.5mg-5mg, may take up to 15 minutes for onset.

To avoid over-sedation, the smallest possible dose should be administered and titrated to effect, giving sufficient time for onset to occur before additional doses are administered.

Monitoring of this patient group can be very challenging but as a minimum there should be assessment of respiratory rate and ideally oxygen saturation every 5-10 minutes.

Appendix 7: What to expect following surgery: inpatient information leaflet.

- if you enjoy watching TV download some films to your IPad/kindle (don't forget to bring their chargers and some headphones).

- Bringing earplugs and an eye mask might help with sleep as hospitals can be busy and noisy places at times and this might help with preventing sleep problems (although we do have these available at the hospital too).

Most of our wards have access to activity pack trolleys; TV's and IPADs - please do ask the staff who are looking after you.

It is important to try to eat and drink as soon as you are advised to by the medical/therapy team, to build up energy levels and help aid your recovery.

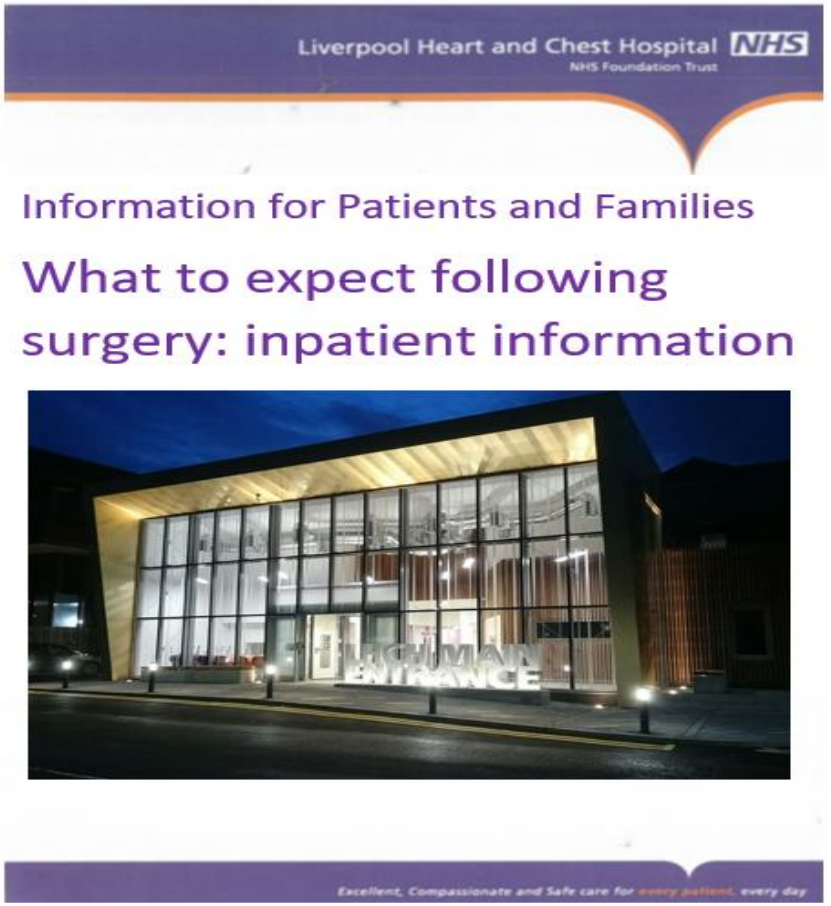
Getting up and moving with the physiotherapy team when they visit is also a very important part of your recovery (we also know that this can help to keep post-operative confusion at bay).

If you feel anxious or worried at any time during your stay, speak to your nurse or a member of the team who will help to reassure you and answer any questions you may have.

We also have a clinical psychology and mental health liaison inpatient service at the hospital and, where appropriate, you can be referred for more in-depth support if needed.

If you have any concerns around additional needs (Learning disability/autism/dementia or other memory problems etc) or have experienced difficult previous hospital stays which may mean you are more worried than usual about your hospital stay, please inform the nurse in charge when you are admitted to the ward, and we will help to accommodate you.

Updated October 2023
To be reviewed: October 2025



"Following surgery, I will wake up in post-operative critical care (POCCU/ITU). What is it like?"

Most patients come to POCCU following cardiac surgery. Our post-operative critical care unit (POCCU) consists of two units. There are 9 beds in POCCU 1 and 12 beds in POCCU 2. Each unit is an open bay with the beds situated around the edges of the room looking inwards to the nurses' station based in the middle. We also have an Intensive Care Unit (ITU) with 12 separate side rooms. Each bed has their own dedicated nurse who will start their shift at around 7am in the morning and handover to another nurse around 8pm in the evening.

The units are often busy with lots of nursing staff and doctors on shift. We also have a therapies team who visit patients throughout the day (such as physiotherapists, speech and language therapists, dietitians, psychologist, occupational therapist etc). You may see a range of the therapy team depending on your needs throughout your stay.

Your Cardiac/Thoracic Surgeon will be able to talk to you about the length of stay you are likely to need following your surgery and whether this is likely to be on POCCU or ITU.

If you would like to watch a video of our critical care unit and what to expect please visit our website and view the Critical Care patient journey video.

"Will I feel confused/disorientated when I wake up from surgery?"

When you wake up following your surgery you would expect to feel some discomfort and pain (although staff will help you manage this with the right medications). Many patients can often feel quite confused on the first day or two after their surgery. Don't worry this is quite common in the early stages of your initial recovery and can be due to a number of factors, such as the effects of the anaesthetic and sedative medicines, alongside the pain medication you may be given. Other reasons, such as lack of sleep or any signs of infection etc, can all play a part. In some cases, at this stage some people can experience short-lived hallucinations (seeing or hearing things which aren't really there) or altered thinking (unusual thoughts about the environment or people around you).

If this confusion does happen, please talk to the medical team looking after you who will help to reassure you. Our staff are trained to support you through this situation and will treat any issues which may be leading to post-operative confusion (which can also be known as "delirium" particularly where the confusion is more significant).

If you would like to know more about Delirium before having your surgery, you can access our patient information leaflet please visit our website.

"What can I do to help the hospital stay go well and help to reduce the likelihood of post-operative confusion?"

There are a few simple things that you can do to enhance your well-being and reduce the likelihood of developing post-operative confusion following surgery. Such as:

- Arrange for your family and/or friends to visit during visiting hours to help you feel reassured and connected to loved ones.
- Making sure that you have any glasses and hearing aids from home so that you can see and hear things as you normally would at home.
- Bringing a familiar item from home such as a family photograph can also help you feel calmer and connected to the outside world outside of visiting hours.
- Making staff aware before surgery about any medications you may take for your mental health/emotional well-being.
- Letting us know if you may be affected by nicotine/alcohol withdrawal effects during your hospital stay so that we can ensure you have the right medications in place.

The day can feel very long when you are in hospital, so it would be worthwhile bringing some of the following items to pass the time and to help you communicate with loved ones:

- your mobile phone and charger
- if you enjoy reading or puzzles bring a book/puzzle books and a pen with you
- if you like listening to music – a personal music player and headphones

Appendix 8 Delirium leaflet: Information for patients and families.

What about when patients leave hospital?

Delirium is distressing for patients and loved ones but once the effects of sedation and/or the underlying cause for this severe confusion has been treated, the distressing symptoms will usually improve.

Some patients may still be a little more confused or less able than usual to carry out their daily task when they leave the hospital, but in most cases these symptoms ease over time. Patients often may not remember their time in hospital or when the delirium occurred. Some patients remember hallucinations and experiences and can be very distressed by them for a short time, and for some they may struggle to forget them for a long time.

Following discharge from hospital, we will contact patients who have experienced delirium who may benefit from a follow-up appointment to review their progress.

Most patients will slowly get better but in a small number of cases the symptoms do not completely go away. If you or your loved ones are concerned, please speak to your GP. Following discharge from hospital if you would like to contact someone to discuss delirium, please contact our Outreach Team on 0151 600 1616 who will be able to sign-post you to any additional support you may need.

Useful websites with sources of information:

- www.icusteps.org
- Intensive care society www.ics.ac.uk
- www.nhs.uk search: Intensive Care and/or Delirium
- www.healthtalk.org
  (a website that has information about patient experiences of intensive care and delirium; search: intensive care)

Updated October 2023
To be reviewed: October 2025

Liverpool Heart and Chest Hospital NHS
NHS Foundation Trust

Information for Patients and Families

Delirium

Excellent, Compassionate and Safe care for every patient, every day

What is delirium?

Delirium describes a state of 'acute confusion'. It is a common condition that feels very real to patients and can often be described as being in an alternate reality. It can affect patients for a very short period of time during illness or following an operation. More than half of surgical patients admitted to hospital can experience some symptoms of delirium at some point during their stay. In most patients the symptoms generally disappear within a few days, although some patients (around 5 %) may continue to experience one or more symptoms when leaving hospital. Some people are more likely to experience delirium when ill or recovering from an operation – such as older people; those with dementia etc.

Delirium can cause one or more of the following:

- Hallucinations (seeing or hearing things that aren't there).
- Unusual or paranoid thoughts (e.g: feeling mistrusting of staff; a fear that people are trying to cause harm).
- Confusion (not knowing where you are or why you are there)
- Restless behaviour, agitation and difficulty sleeping (*hyper*active delirium) OR Excessive sleepiness and withdrawal (*hypo*active delirium). Or a mixture of both ("mixed delirium")
- Delirium can change and fluctuate – with a patient seemingly ok one minute and confused the next.

At the time, a patient experiencing delirium is often convinced that their experiences are reality and this can then affect their behaviour (e.g: a patient may ask family to take them home before they are well enough). During an episode of delirium, patients may sometimes may not recognise even their closest family members which may be very upsetting and difficult to deal with.

Why do people experience delirium?

Delirium often has many causes. Recent anaesthetic and/or sedation contribute, as do other underlying physical causes such as pain, infection, lack of nutrition or hydration, constipation, lack of movement, etc and all will need to be considered and treated.

The hospital environment with unusual noises can add to the experience of delirium. In critical care areas there are often few windows therefore patients often do not know what time of day/night it is. However, in critical care we have a peaceful garden area where staff can take our patients to help promote well-being and re-orientation. Difficulty sleeping (sleep deprivation) also plays a part in delirium and our staff aim to promote a healthy sleep cycle whilst patients are in hospital. Our staff understand delirium and are trained to help reassure patients and their families and to help them through this difficult time. Staff will encourage family members to help re-orientate the patient and are happy to answer any of your questions and address any concerns.

How can I help someone with delirium?

You can help someone with delirium feel calmer and more in control if you:

- try to stay calm
- make sure they can see a clock/calendar to help keep them orientated
- remind them of where they are and why
- talk to them in short, simple sentences; check that they have understood you and repeat things if necessary
- try not to agree with any unusual or incorrect ideas, rather tactfully disagree or change the subject
- if they are in hospital, bring in some familiar objects/photographs from home to help provide reorientation and a connection to home
- make sure they have their usual glasses and hearing aid (as being without them may add to any hallucinations)
- help/encourage them to eat and drink where appropriate
- help to keep them in a day and night routine (more wakefulness in the day using low level stimulation – puzzle books; kindle/phone etc when ready)
- speak with them about delirium and how common this can be. Reassure them that this is short-lived and it will pass.

9. Endorsed By:-

Name of Lead Clinician/ Manager or Committee Chair	Position of Endorser or Name of Endorsing Committee	Date
Jacqui Stratton	Nurse lead	25/10/2023

10. Record of Changes

Section Number	Version Number	Date of Change	Description of Amendment	Description of Deletion	Description of Addition	Reason
1	V.3	01/04/21	Rewording of policy statement to clearly define delirium.			Wording so it is easier for staff to use and follow.
3	V.3	01/04/21	Added in Delirium assessment forward areas.			Ward area assessment needed.
3.8.5	V3	25/05/2022			Reporting incidents to police	Further staff support if required
3.8.3	V3	25/05/2022	Psychology			Further staff support if required
3.8.6	V3	25/05/2022			Mental Health Support	Further staff support if required
7	V3	25/05/2022	Does patient have altered mental state (Delirium)			Wording so it is easier for staff to use and follow
Page 1	V4	25/10/2023	Added new clinical lead and new authors			Reviewed policy
3.3	V4	25/10/2023			Delirium tailored invention. PINCH ME	Support staff when assessment/management of patients showing signs of delirium
3.5.2	V4	25/10/2023			Behaviour charts (behaviour chart)	Further support for staff to access
3.6	V4	25/10/2023			Treat the underlying cause (s) where applicable. The psychoactive properties of psychotropics could worsen or prolong delirium. Updated guidelines from NICE 2023, reflecting that Haloperidol is only licensed antipsychotic for acute delirium	Further support if staff required.

					where nonpharmacological management has been ineffective. due to cardiac effects often not appropriate as first line for the cohort of patients at LHCH unless in extremis.	
3.8.3	V4	25/10/2023			Critical care psychology or ward support cover where possible. We will aim to respond to the referral within 48hours .	Support for staff when referring patients to psychology team.
3.8.4	V4	25/10/2023	Mental health liaison team.			Further support for staff to access
3.8.6	V4	25/01/2023			Mental Health Liaison team	Further support for staff to access
3.11	V4	25/10/2023			Mental health team may consider dementia assessments if indicated	Staff support from Mental health team.
6	V4	25/10/2023			British national Formulary. Nice Guidelines	Staff to access pharmacologic support if required
Appendix 3	V4	25/10/2023	Ward area delirium risk assessment. 4AT			Following a trial on surgical ward, roll out to all ward areas.
Appendix 4	V4	25/10/2023			Changes to 1st line – second generation Antipsychotic. 2nd Line -Rescue therapy for significant agitation	Medication management of hyperactive delirium in wards patients.
Appendix 5	V4	25/10/2023			Rationale must be clearly documented why pharmacological management was required. depression Consider MHLT referral for advice IV /IM preparations should be given. use cautiously if a history of respiratory illness	Support staff with patients with Parkinson disease or Lewy Body Dementia or severe cardiac dysfunction

					as there is a risk of respiratory under senior guidance.	
Appendix 6	V4	25/10/2023			Critical care psychology or ward support cover where possible. We aim to respond to the referral within 48hrs.	. Support for the staff when referring patients to psychology team.
Appendix 6	V4	25/10/2023			Use cautiously if a history of respiratory illness as there is a risk of respiratory depression. IV/IM preparations should be given under senior guidance.	Management of patients with severe agitation requiring rapid Sedation
Appendix 7	V4	21/11/2023			What to expect following surgery-inpatient information Leaflet	
Appendix 8	V4	21/11/2023			Delirium Leaflet	