Delirium management advice for patients with confirmed or suspected COVID-19 in the acute trust setting

- Older people are at particular risk of delirium as well as COVID-19, and delirium may be one of the symptoms of COVID-19.
- Hyperactive delirium may present particular challenges in the context of the COVID crisis
- Standard non pharmacological measures may not be possible in isolation environments
- Isolation environments and PPE may worsen symptoms of delirium; however PPE must be worn in line with national recommendations
- Risk of harm to others may exceed risk to individuals and earlier use of pharmacological measures may be necessary

PREVENTION

- Identify if patient is at risk – older, dementia, comorbidities, recent hip fracture
- Identify baseline level of functioning via collateral history if needed. Drug and alcohol history is also important.
- Orientate, ensure people have their glasses and hearing aids, control pain, promote sleep hygiene, mobilise, maintain optimal hydration and nutrition, support with toileting, monitor and treat any pain or constipation, optimise oxygenation
- Optimise medication and consider anticholinergic burden
- Minimise number of changes of environment as far as possible (e.g. moves between wards)

DETECTION

- Are they different today? Listen to carers and family. Look for symptoms of delirium.
- Use the **4AT screening tool for delirium** (www.the4AT.com)
- Delirium due to withdrawal from drugs or alcohol should be considered
- Delirium can be hyperactive, hypoactive or mixed

SYMPTOMS/FEATURES OF DELIRIUM

Disorientation	**Acute onset (hours/days)**
Agitation and restlessness	**Disturbances in attention and awareness**
Withdrawal and drowsiness	**Fluctuating symptoms**
Mood disturbance	**Disrupted sleep/wake cycle**
Delusions	**Perceptual disturbance including hallucinations**

PINCH ME
Common causes of delirium

Pain
Infection
Nutrition
Constipation
Hydration & Hypoxia

Medication & Metabolic
Environment

MANAGEMENT

- Communicate clearly and carefully and allow plenty of time when assisting the patient
- Consider if investigation/treatment in best interests is needed under the **Mental Capacity Act,** and involve NOK
- Consider risk to self and others due to current symptoms (e.g. aggression, accident, self-neglect, physical deterioration, infection risk to others in context of COVID-19)
- Perform physical examination & investigations to identify causes
- Bloods ideally to include full confusion screen (FBC, U+E, LFTs, TFTs, vit B12, folate, vit D, bone profile, CRP)
- Consider CT if indicated (witnessed or possible fall, on anticoagulants, neuro Sx)
- Treat all underlying causes and involve MDT as far as possible (e.g. physio, OT, SALT, dietician)
- Review current medications; ensure optimal pain management (use Bolton Pain Scale if required); treat any constipation
- Address sensory impairments -make sure people have their hearing aids and glasses
- Ensure proper hydration & nutrition – make sure people have their dentures
- Optimise environment - support with sleep hygiene, use environmental cues (clock, calendar, radio etc) to aid orientation)
- Consider side room if available, consider 1:1 nursing & aim for staff continuity, ensure adequate lighting and comfortable
- Break down complicated tasks; regular reorientation and explanation; acknowledge distress and validate feelings
- Do not confront false beliefs (illusions, delusions), offer reassurance and foster independence
- Inform, educate and counsel the family; assist contact with family if possible; interact regularly as tolerated by patient

Use non-pharmacological interventions first wherever possible.
Medication may be needed for patients with agitation where there is intractable distress or high risk to self/ others
See next page for medication advice on managing delirium in COVID-19

USE OF SEDATING MEDICATION FOR SEVERE AGITATION IN PATIENTS WITH DELIRIUM AND COVID-19

Psychotropic medications have major drug interactions with potential COVID-19 and many other drugs. Check for potential interactions - see table below & https://reference.medscape.com/druginteractionchecker or http://www.covid19-druginteractions.org/

- There is ongoing debate as to which medication should be used first line for delirium. Current advice is to start with low dose lorazepam or haloperidol and increase dose and frequency slowly if needed. Be aware that benzodiazepines may cause respiratory depression, and so haloperidol may be preferred in COVID delirium. Prescribe flumazenil if needed.
- Stat dosing should be used initially however PRN use may be needed if agitation persists
- Haloperidol can be given subcutaneously during palliative care
- **Antipsychotics should not be used for patients with Parkinson's Disease or Lewy Body Dementia**
- An ECG should be obtained prior to administering antipsychotics to check QTc (upper limits 440mS in men, 470mS in women)
- Haloperidol is not licensed for concomitant use with other QTc prolonging drugs (which include some antimicrobials and antiarrythmics)
- If antipsychotics are contraindicated low dose lorazepam can be used, please note lorazepam is not licensed in delirium
- In severe cases both antipsychotics and lorazepam may be needed
- Alternative antipsychotics can be used if needed, but please note they are not licensed for delirium. Risperidone is licensed for use in Alzheimer's dementia for aggression, so can be considered if there is a history of this
- Avoid polypharmacy and monitor for medication side effects, after sedation vital signs must be monitored as per rapid tranquillisation policy
- If patient lacks capacity consider covert medication as a least restrictive option under the MCA, as per local policy
- Doses listed are for older people - higher doses may be needed for younger patients – check BNF for upper limits
- For end of life last days/hours levopromazine and midazolam can be used in combination in a syringe driver - seek palliative care advice if needed

Medication	Route	Dose range (mg)	Daily frequency range	Recommended 24 hour max
Lorazepam	PO/IM/IV	0.5-1	OD - QDS	2mg
Haloperidol	PO/IM/SC (liquid form available)	0.5 – 2	OD - 2-4 hourly	5 mg
Risperidone	PO (liquid form available)	0.25 – 0.5	OD -BD	2 mg
Olanzapine	PO/IM (liquid form available)	2.5 - 5	OD - BD	10 mg
Quetiapine	PO (liquid form available)	12.5 - 50	OD - BD	100mg

If no improvement over 4 days, review diagnosis
Continue to treat underlying medical condition(s)
Continue to address common causes of delirium, e.g. constipation, dehydration, urinary tract infection, pain, medication side effects

Drug interactions between commonly used medications in delirium and COVID- 19 drugs

	ATV	LPV/r	RDV	FAVI	CLQ	HCLQ	NITAZ	RBV	TCZ
Aripiprazole	↑	↑	↔	↔	↔	↔	↔	↔	↔
Haloperidol	↑♥	↑♥	↔	↔	↔♥	↔♥	↔	↔	↔
Olanzapine	↔	↓	↔	↔	↔	↔	↔	↔	↔
Quetiapine	↑♥	↑♥	↔	↔	↔♥	↔♥	↔	↔	↔
Risperidone	↑♥	↑♥	↔	↔	↑♥	↑♥	↔	↔	↔
Diazepam	↑	↑	↔	↔	↔	↔	↔	↔	↔
Lorazepam	↔	↔	↔	↔	↔	↔	↔	↔	↔
Midazolam (oral)	↑	↑	↔	↔	↔	↔	↔	↔	↔
Midazolam (parenteral)	↑	↑	↔	↔	↔	↔	↔	↔	↔
Oxazepam	↔	↔	↔	↔	↔	↔	↔	↔	↔
Zaleplon	↑	↑	↔	↔	↔	↔	↔	↔	↔
Zolpidem	↑	↑	↔	↔	↔	↔	↔	↔	↔
Zopiclone	↑	↑	↔	↔	↔	↔	↔	↔	↔

Key
- ↑ Potential increased exposure of the co-medication
- ↓ Potential decreased exposure of the co-medication
- ⇑ Potential increased exposure of COVID drug
- ⇓ Potential decreased exposure of COVID drug
- ↔ No significant effect
- ♥ One or both drugs may cause QT and/or PR prolongation. ECG Monitoring is advised if co-administered

Colour Legend

	These drugs should not be co-administered
	Potential interaction which may require a dose adjustment or close monitoring.
	Potential interaction likely to be of weak intensity. Additional action/monitoring or dosage adjustment unlikely to be required.
	No clinically significant interaction expected

Key to abbreviations

ATV	Atazanavir	CLQ	Chloroquine
LPV/r	Lopinavir/ritonavir	HCLQ	Hydroxychloroquine
RDV	Remdesivir	NITAZ	Nitazoxanide
FAVI	Favipiravir	RBV	Ribavirin
		TCZ	Tocilizumab

Date: 28th March 2020 Dr Josie Jenkinson, Consultant Psychiatrist for older people, ASPH Psychiatric Liaison services. Adapted for older adults from original guidance compiled by Prof Tayyeb Tahir, Dr Mehrul Hasnain, Dr Ankit Saxena, Dr Radhika Oruganti at University of Wales with reference to the Liverpool Drug Interactions Group, – with grateful thanks. References: SIGN Guideline 157 Delirium 2019, BGS and RCPsych Coronavirus: managing delirium in confirmed and suspected cases 2020, British National Formulary 79 2020, Maudsley Prescribing Guidelines 2018, Clinical guide for the management of palliative care in hospital during the coronavirus pandemic NHS England 2020. This guidance may be amended following further national guidance and development of evidence base.