Delirium Management Guidelines - COVID 19

STEP 1: Confirm Diagnosis

Those infected with COVID-19 may present with or develop delirium. Assess regularly

1. **Symptoms**
   A. Disturbance in attention or ability to focus and awareness
   B. Acute onset with a change from baseline tending to fluctuate over the course of a day
   C. Cognitive disturbance (memory, disorientation, language, perception including hallucinations)
   D. Symptoms not better explained by pre-existing or evolving neurocognitive disorder (e.g. dementia)
   E. Evidence form history, examination or investigations of a direct causative factor
2. **Review notes and drug charts**
3. **Ensure appropriate investigations have been completed**
4. Substance intoxication delirium should be considered when symptoms warrant clinical attention, consider discussing with the substance misuse liaison team

STEP 2: Risk Assessment

- Cognitive assessment. Use a standard and culturally appropriate tool - MMSE, MOCA, 4AT, CAM, Clock drawing
- Assess mental capacity for participation in treatment. Involve next of kin if needed
- Assess patient and staff-related factors that may lead to non-compliance
- Assess agitation & restlessness

STEP 3: Management

- **Medications**
- **Environmental**
- **Psychological/behavioural**
- **General**

Medications

- Medications are reserved for delirium with agitation
- **Psychotropic medications can have major drug interactions with potential COVID-19 and many other drugs. Check for potential interactions, e.g.**, https://reference.medscape.com/drug-interactionchecker or http://www.covid19-druginteractions.org/
- Start with low dose lorazepam and increase dose and frequency slowly if needed. Prescribe flumazenil if needed.
- Switch to or add a low dose antipsychotic (see table below) in hyperactive delirium
- May use low dose lorazepam and/or an antipsychotic on PRN basis
- Avoid polypharmacy and monitor for medication side effects
- Avoid long-acting benzodiazepines
- Use low doses in the elderly (around half that of the daily dose of adults) and those with multiple medical problems
- Get baseline ECG to monitor QTc in high-risk situations
- Monitor for akathisia, a potential side effect of antipsychotics that can mimic or add to agitation

Medication	Dose range (mg)	Daily frequency range	Maximum adult dose in 24 hours
Lorazepam	0.25 - 1	QD to QID	4 mg
Quetiapine	12.5 - 50	QD to BID	300 mg
Olanzapine	1.25 - 5	QD to BID	10 mg
Risperidone	0.25 - 1	QD to BID	3 mg
Haloperidol	0.5 - 1	QD to QID	4 mg

If no improvement over 4 days, review diagnosis
Continue to treat underlying medical condition(s)
Do not overlook common causes of delirium, e.g., constipation, dehydration, urinary tract infection, pain, medication side effects

Environmental

- Consider nursing in a cubicle
- Offer 1-to-1 nursing and aim for staff continuity
- Use environmental clues (clock, calendar, newspaper, television, etc) to aid orientation
- Ensure adequate lighting and put sign on toilet
- Use help of familiar faces when allowed/possible
- Improve mobility

Psychological

- Breakdown complicated tasks
- Acknowledge distress / validation of feelings
- Frequently and politely orientate the patient
- Ensure use of sensory aids (hearing & visual aids)
- Inform, educate and counsel the family
- Do not confront false beliefs (illusions, delusions)
- Offer reassurance and foster independence

General Management

- Perform physical examination and investigations for assessment and management
- Ensure optimal pain management
- Get the person's attention before communicating
- Ensure proper hydration and nutrition
- Provide a clam and comfortable environment
- Provide sufficient space
- Interact regularly as tolerated by the patient.
- Assist in establishing a regular day-night cycle
- Allow plenty of time when assisting the patient
- Address any unmet needs (constipation, hydration, room temperature control, discomfort)

Compiled by: **Professor Dr. Tayyeb Tahir, tayyeb.tahir@wales.nhs.uk**
Professor Dr Mehrul Hasnain, Dr Ankit Saxena and Dr Radhika Oruganti

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

	ATV	LPV/r	RDV	FAVI	CLQ	HCL Q	NITA Z	RB V	TCZ
Aripiprazole	↑	↑	↔	↔	↔	↔	↔	↔	↔
Haloperidol	↑♥	↑♥	↔	↔	↔ ♥	↔ ♥	↔	↔	↔
Olanzapine	↔	↓	↔	↔	↔	↔	↔	↔	↔
Quetiapine	↑♥	↑♥	↔	↔	↔ ♥	↔ ♥	↔	↔	↔
Risperidone	↑♥	↑♥	↔	↔	↑♥	↑♥	↔	↔	↔
Diazepam	↑	↑	↔	↔	↔	↔	↔	↔	↔
Lorazepam	↔	↔	↔	↔	↔	↔	↔	↔	↔
Midazolam (oral)	↑	↑	↔	↔	↔	↔	↔	↔	↔
Midazolam (parenteral)	↑	↑	↔	↔	↔	↔	↔	↔	↔
Oxazepam	↔	↔	↔	↔	↔	↔	↔	↔	↔
Zaleplon	↑	↑	↔	↔	↔	↔	↔	↔	↔
Zolpidem	↑	↑	↔	↔	↔	↔	↔	↔	↔
Zopiclone	↑	↑	↔	↔	↔	↔	↔	↔	↔

Key to abbreviations

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

Colour Legend

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

Text Legend

- ↑ 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.

References:

Liverpool Drug Interactions Group

For up to date information www.covid19-druginteractions.org