

**Guidance for managing community lithium patients during COVID-19**

**1.0 Background**

Lithium has a narrow therapeutic range, meaning the serum level needed for response and the level that causes toxicity are very close together

Target lithium levels are 0.6-0.8 mmol/L. We would only go for levels between 0.8-1.0mmol/L in patients who have relapsed previously on lithium or have sub-threshold symptoms with functional impairment

Recent reports from Wuhan, China suggested that “kidney disease on admission and acute kidney injury (AKI) during hospitalization were associated with an increased risk of in-hospital death” in patients with COVID-19 disease. Therefore, the possible effect of lithium on kidney function must be borne in mind when treating patients who develop the disease

**2.0 Advice to Patients**

Remind all patients:

* To seek medical attention if they develop diarrhoea or vomiting, or feel acutely unwell for any reason
* To ensure they maintain adequate fluid intake, particularly if they have a fever, if they are immobile for long periods or if they develop a chest infection or pneumonia
* To inform their prescriber of any changes to their drug treatment
* Not to take over-the-counter non-steroidal anti-inflammatory drugs (e.g. ibuprofen), but to take paracetamol instead
* Not to stop lithium abruptly unless advised to do so

**3.0 Other considerations**

Drug interactions are an important cause of increased lithium levels and subsequent
decline in renal function. NSAIDs, diuretics and ACE inhibitors/ARBs are the most
common drug causes of lithium toxicity.

Dehydration or reduced fluid intake is another important cause of lithium toxicity

In many cases of slowly developing lithium toxicity, symptoms can be relatively bland,
non-specific or non-existent. Signs of moderate to severe lithium toxicity may include
diarrhoea, vomiting, mental state changes, coarse tremor or falls due to ataxia

**4.0 Advice to prescribers**

Patients without symptoms of COVID-19

Patients who are self-isolating should not attend the clinic or GP surgery for routine lithium monitoring tests. The appointment should be re-booked for a later date unless the patient falls under the high-risk group outlined below.

Patients with symptoms of COVID-19

Patients presenting with new cough and/or fever: advice the prescriber that the patient should continue taking lithium but advice that a blood sample for lithium serum level and U&Es is taken. Remind patient of need to maintain their fluid intake. If lithium levels are elevated or kidney function is compromised, seek urgent Consultant advice.

If there is any delay in obtaining a lithium level, it may be reasonable to consider pausing treatment after discussion with prescriber and await the result of the lithium level. Blood levels should govern on-going treatment and the dose used. Be aware that sudden discontinuation of lithium can be associated with a rapid relapse of symptoms, particularly mania. Use caution until the patient has regained physical health, with increased frequency of monitoring of lithium levels and renal function.

Patients presenting with flu-like/COVID-19 symptoms and symptoms of lithium toxicity (e.g. diarrhoea, vomiting, tremor, mental state changes, or falls):

**Consider WITHOLDING lithium, take URGENT lithium serum level and U&Es.**

**5.0 At-risk patients**

People who require more frequent lithium monitoring

*These patients MUST continue to have their regular lithium monitoring*

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| Elderly |
| Initiating or stopping drugs that interact with lithium\* |
| Established chronic kidney disease |
| Evidence of impaired thyroid function |
| Raised calcium level |
| Poor symptom control |
| Poor adherence |
| Has a lithium serum level > 0.8mmol/L |

\*NSAIDS, ACE inhibitors, ARBs, diuretics

**References**

* National Institute for Health and Care Excellence (2014). *Bipolar disorder:*  *assessment and management.* (NICE Guideline 185). Updated February 2020. Available at: [https://www.nice.org.uk/guidance/cg185](https://www.nice.org.uk/guidance/cg185/)
* Taylor DM, Young AH, Barnes TRE. The Maudsley Prescribing Guidelines in Psychiatry 13th Edition. Vol. 13, Wiley Blackwell. 2018. 1-854.
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