COVID-19 and lithium

A 4 page guide published (March 25th 2020) by South London and Maudsley NHS Foundation Trust on additional precautions and special measures for COVID 19 and lithium.

**The key points of the guide are**:

* 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 (0.4mmol may be enough for some patients and indications). Blood samples should be taken 12 hours after the last dose.
* Lithium is exclusively excreted by the kidneys and can build up in the blood if kidney function is impaired. 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.
* **Lithium toxicity** is caused by drug interactions, dehydrations, Signs of moderate to severe lithium toxicity may include diarrhoea, vomiting, mental state changes, coarse tremor or falls due to ataxia.
* **General guidelines and precautions**
* 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 in the guide.
* Patients presenting with new cough and/or fever: ask the patient to continue taking lithium but take blood sample for lithium serum level and U&Es. Remind patient of need to maintain their fluid intake. If lithium levels are elevated or kidney function is compromised, seek urgent specialist advice.
* Patients presenting with flu-like/COVID-19 symptoms and symptoms of lithium toxicity (e.g. diarrhoea, vomiting, tremor, mental state changes, or falls): WITHOLD lithium, take URGENT lithium serum level and U&Es.