

This document is to assist non-respiratory specialists to request appropriate laboratory tests in ward patients with COVID-19 infection. There may be variance from this schedule depending on the clinical condition of the patient and agreed ceilings of care. **It is the responsibility of the requesting clinician to review all test results.**

Profiles for recommended tests are available on the *Blood Sciences tab > Covid-Testing* on Cyberlab. If you cannot access this from your clinical area, contact [mark.mcdonald@belfasttrust.hscni.net](mailto:mark.mcdonald@belfasttrust.hscni.net)

**On admission :** These tests may already have been requested by ED.

Biochemistry: U&E, LFTs, CRP. Haematology: FBC, coagulation, COVID D-dimer.

**Monitoring (ward patients):** as recommended by BHSCT ID / respiratory teams.

### 48 hourly

- U&E and FBC (may be required more frequently if patient on IV fluids or clinically unstable).
- Consider coagulation, COVID D-dimer (see coagulation and FBC below).
- Coagulation and COVID D-dimer may be required more frequently if directed by specialist laboratory team.

### 72 hourly:

- LFTs, CRP.
- ABG and ferritin if increasing O<sub>2</sub> requirement or clinical deterioration.

<b>FBC</b>	Lymphopenia is very common. There may be leukopenia or leukocytosis. Neutrophilia, thrombocytopenia, and decreased haemoglobin may also occur
<b>Coagulation and FBC:</b>	In non-bleeding patients, consider keeping platelet count above 20 x10 <sup>9</sup> /L and fibrinogen above 1.0 g/L. In bleeding patients, consider keeping platelet count above 50 x 10 <sup>9</sup> /L, fibrinogen above 1.0 g/L and PT ratio less than 1.5. <i>For clinical support with interpretation contact 47977 Mon-Fri 9am- 5 pm.</i>
<b>COVID D-dimer:</b>	A sensitive D-dimer assay (in BHSCT COVID D-dimer) should be used. Elevated D-dimer is associated with more severe disease and therefore prognosis. Serial measurements will be required along with platelet count, fibrinogen and PT in management of a coagulopathy (DIC).
<b>Liver enzymes:</b>	Transaminases levels are often mildly increased, albumin may be low. Albumin is a 'negative acute phase reactant' and falls when there is severe inflammation and / or illness.
<b>CRP:</b>	CRP may be elevated and increases further with severe disease. Consider secondary bacterial infection if very high levels.
<b>ABG:</b>	Measure if there is a fall in O <sub>2</sub> saturation on pulse oximetry. It may also indicate respiratory acidosis and elevated PaCO <sub>2</sub> in patients with respiratory distress.

### Additional tests:

- Ferritin:** Studies indicate that levels correlate with disease severity and therefore prognosis. Very high levels may indicate secondary bacterial infection.
- Troponin:** Only test if acute ischaemic heart disease is suspected. Results are difficult to interpret as Troponin may be elevated in COVID-19 patients due to non-ischaemic cardiac injury.
- NT-proBNP:** This can increase in severe respiratory illness in the absence of clinical cardiac failure. Results may therefore be difficult to interpret. Only request when the result is likely to influence immediate management.
- Group and hold or Cross-matching:** Only indicated if anaemia is severe and transfusion required.