

Recommendations for Pulmonary Function Testing for Long COVID Patients 6 years old and greater

Purpose:

This quick reference tool offers provincial guidance about the prudent use of **pulmonary function testing (PFT)** following COVID-19 infection. It combines best available evidence from the published literature with consensus-based clinical expertise from across Alberta; it will be revised as new evidence becomes available.

This guidance is to be used with **clinical judgment and availability** of local testing facilities.

Documentation of serial lung function decline following COVID-19 infection, even in previously hospitalized asymptomatic patients, could be of value to detect restrictive lung disease. All patients who have had confirmed or suspected COVID-19 infection should be periodically reassessed for the possibility of ongoing respiratory symptoms. Regarding the frequency of follow-up PFT testing in these patients, consider a pulmonary specialty consult.

Consider referral for a **full PFT** (i.e. *spirometry + lung volumes + diffusing capacity/DLCO) when those 6 years old or greater had confirmed or suspected COVID-19 infection **and**:

- The patient was *hospitalized* (i.e. admitted as an inpatient) for any length of time for the treatment of COVID-19, **whether or not** they have ongoing respiratory symptoms (e.g. chronic cough, sputum, wheeze, dyspnea) and it has been at least 3 months since discharge;
- or**
- The patient was *treated at home*, has **ongoing** respiratory symptoms and it has been at least 3 months since the onset of COVID-19 infection;
- or**
- The patient was *hospitalized or treated at home* and has **concerning** respiratory symptoms at any point in time since the resolution of acute COVID-19 symptoms.

***Note:** For those with respiratory symptoms for whom you suspect asthma, COPD and/or chronic cough but have NOT had confirmed or suspected COVID-19 infection, spirometry alone is the prudent pulmonary testing.

So, M. et al., 2021 Radiological and functional lung sequelae of COVID-19: a systematic review and meta-analysis. *BMC Pulmonary Medicine*, 21(1), 97.
Torres-Castro, R. et al., 2021 Respiratory function in patients post-infection by COVID-19: a systematic review and meta-analysis. *Pulmonology*, 27(4), 328–337.
British Thoracic Society Guidelines, 2020

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