

Peak Respiratory Bodies recommend suspension of lung function testing

We know you are all well aware of the current situation with SARS-CoV-2. Respiratory clinical staff are in the front line. We appreciate this and thank everyone for their hard work on behalf of the broad community we serve.

Some respiratory therapies, including nebulisation, high flow oxygen, non-invasive ventilation, and the use of cough assist devices, can and do produce aerosols. In patients with SARS-CoV-2 these aerosols probably contain virus particles. The use of these therapies therefore poses a significant risk of transmission of viral infection to staff and patients.

While these therapies offer significant benefits to some patients, there are often viable alternative approaches to management that have less risk of transmitting viral infection. The overall risk can be mitigated by restricting the use of these high-risk therapies and using personal protective equipment (PPE). The Thoracic Society of Australia and New Zealand (TSANZ) and the Australian and New Zealand Society of Respiratory Science (ANZSRS) thus recommend the use of spacers rather than nebulisers wherever possible due to the potential for droplet spread.

Spirometry is the most frequently performed pulmonary function test (PFT) in Australia and New Zealand and is the cornerstone of lung function testing, both in primary care and in the specialist setting.

Nonetheless, during the current SARS-CoV-2 pandemic, the TSANZ and ANZSRS consider it is prudent to suspend spirometry testing unless it is deemed clinically essential, due to the potential risk of transmitting SARS-CoV-2. Spirometry requires a forced expiratory manoeuvre which could spread droplets in the air if an infected person is tested, even if he or she is asymptomatic. The risk of other individuals inhaling the droplets exists, even if the exact risk of infection in this situation is as yet unknown. The respiratory plume of exhaled particles contains virus for several hours and surfaces may retain viruses for several days.

Due to this risk, many lung function laboratories have already closed temporarily. Other laboratories are not measuring lung volumes with body plethysmography, and others are limiting testing only to essential tests. Most spirometry testing can be deferred. Thus, under these circumstances and until more is known about SARS-CoV-2, the TSANZ and ANZSRS recommend that lung function testing (including spirometry) should be discontinued in all but medically essential cases as determined by a respiratory physician. When performed, protection of staff with PPE is essential. Where available, portable individual patient dedicated spirometers are a useful tool to monitor serial changes in spirometry within the patient's own home.

Spirometry testing in occupational respiratory surveillance should also be postponed at this time, as should fit testing, except in rare circumstances in the health care environment.

This approach is consistent with recent recommendations by national and international agencies.



The TSANZ and ANZSRS suggest that members should check for guidance from their state and federal health departments. The link to the Australian Department of Health is: www.health.gov.au and the link to the Ministry of health in NZ is <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus>.

Keep well and stay vigilant!

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