Recommendation for the resumption of urgent and elective outpatient lung function testing during the COVID-19 Pandemic July 1, 2021 Interim Update

INTRODUCTION:

Efforts to maintain COVID-19 led to the cessation of all aerosol-generating diagnostic procedures such as spirometry. PFT test maneuvers can generate expiratory airflow rates that are higher than those during coughing and are high enough to aerosolize microorganisms. Hence, PFT has been postulated to transmit SARS-COV-2. Thereby, constant precautionary measures are being implemented to safeguard both the patient and healthcare workers conducting the test.

However, it has been recognized that PFTs cannot be delayed for a long time in some group of patients. It has also been postulated that PFTs play a crucial role in the monitoring of possible fibrotic complications of COVID-19. We need to consider that the infection will remain endemic and we have to coexist with the disease, which will become a part of the routine practice.

As such, decisions regarding the performance of pulmonary function tests is a balancing act between the possible risks involved against the need for assessment of lung function to make management decisions.

IS IT SAFE TO RESUME LUNG FUNCTION TESTING?2-6

ERS and ATS still advocates to limit lung function test requests to patients requiring urgent/essential tests only for immediate diagnostics of current illness.

- It is not recommended for any patient with symptoms of COVID-19 or flu like symptoms be tested under any circumstances at this time.
- Postpone all routine testing during the critical phase of this crisis.
- Confirmed COVID-19 patients must not be tested for a minimum of 30 days post infection.
- Full operation of lung function services may only resume when viral prevalence is low and reliable testing based on a combination of symptom screening and testing is readily available.
- Prioritize groups of patients for whom diagnostic spirometry will potentially impact their treatment pathway or determine their onward care:
  - Pre-operative risk stratification for urgent surgery (thoraco-abdominal surgery) or treatment (transplant, pre-chemotherapy, pre-radiation therapy)
  - Monitoring patients at risk for drug-related pulmonary toxicity
  - Monitoring lung transplant patients
  - Accurate diagnosis of asthma or COPD IF peak-flow monitoring cannot be done or is unavailable *Spirometry to confirm diagnosis is valuable but not an immediate priority
No specific indications for PFTs in COVID-19 recovered patients are mentioned by the other international Guidelines.

Additional recommendations include the following:
1. Make a demonstration video focused on the maneuvers for correctly performing spirometry and give a copy to the patient beforehand or project it in the waiting area. This will enable patients to be prepared for the visit. Alternatively, provide educational posters if instructional videos are not feasible.
2. A documented negative swab test 48-72 hours before PFTs or arranging a dedicated post-COVID PFT lab facility for recovered COVID-19 patients.
3. Continue implementing infection control and hygiene measures for potential sources of cross-contamination when performing the test: skin contact, aerosolized particles, and saliva/body fluids.
4. Suggested time between patients/tests is 30-60 minutes.

CONCLUSION

- It is still recommended that pulmonary function testing be limited to tests that are only essential for immediate treatment decisions and to defer all routine testing during the critical phase of this crisis.
- Infection control measures to protect both the healthcare workers and patients being tested should still be implemented as new variants arise.

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3 SEPAR/AEC/AET/SEAIC . 2020. Recomendaciones de prevención de infección por coronavirus en las unidades de función pulmonar de los diferentes ámbitos asistenciales.
5 BTS/ ARNS/ PCRS/ ARTP. Risk minimization in spirometry restart. April 2021
6 BTS. Guidance for the Continuation of Urgent and Elective Outpatient Respiratory Services. May 2021