

Essential adaptations in Primary Care Diagnosis and Management of COPD during COVID19 pandemic

Spirometry is considered by ARTP as aerosol generating procedure and is currently unavailable in Primary and Community Care and its usage in secondary is restricted. Hence this addendum to the Staffordshire and Stoke-On-Trent COPD Guidance offers a pragmatic guide to diagnosing COPD in primary and community care settings without spirometry.

The diagnosis of chronic obstructive pulmonary disease (COPD) relies heavily on history but can only be formally diagnosed if fixed airflow obstruction without reversibility is demonstrated, unless diagnosed as emphysema on a computerised tomographic (CT) scan. However, in the absence of spirometry, obstruction can also be suspected using peak flow measurement:

- **Establish Airway Obstruction**: PEFR <75% predicted suggests a degree of airflow obstruction.
- **Establish Fixed Airway Obstruction**: When trying to assess whether this is COPD, a serial measurement over 2 weeks that does not vary but also remains low despite use of salbutamol for symptom relief would suggest fixed airflow obstruction and is suspicious for COPD in the context of supporting clinical history. Then read code in record as **Suspected COPD**.
- **Initiate Empirical Therapy**: Patients who do not have variation in peak flow should have an empirical trial of dual bronchodilator therapy (or ICS/LABA if history of exacerbations and eosinophils>0.3) as per Staffordshire and Stoke-On-Trent COPD prescribing guidance and reassess in 6-8 weeks. Confirm the diagnosis if there is a response to the treatment.
- **Follow Staffordshire and Stoke-On-Trent COPD algorithm** for holistic assessment and management in all patients.
- Any tentative diagnosis of COPD should be confirmed with spirometry when safe to perform in primary care and a clear record should be made in the patients' notes that spirometric confirmation of obstruction without reversibility is required at a later date and patient is informed.
- If any doubt, refer for specialist advice as per local protocol.

Safety of PEFR measurement: Peak flow manoeuvres are also potentially Aerosol Generating Procedure just like Spirometry and should be not performed during a face to face consultation and should not be demonstrated to the patient in the same room (training videos for peak flow are available on the internet). We recommend that peak flow should be performed in an outdoor space or a separate room where the patient can be viewed remotely, and room left vacant for an hour to ventilate.

For patients in whom COPD is suspected and a PEFR test is considered necessary this can be carried out using the patient's own PEF meter and disposable mouthpiece in a room with an open window or outside the building.

Peak expiratory flow monitoring guidance– Peak expiratory flow (PEF) should be recorded as the best of three forced expiratory blows from total lung capacity with a maximum pause of two seconds before blowing. The patient can be standing or sitting. Further blows should be done if the largest two PEF are not within 40 L/min. Peak expiratory flow is best used to provide an estimate of variability of airflow from multiple measurements made over at least two weeks. Increased variability may be evident from twice-daily readings. Peak expiratory flow variability is usually calculated as the difference between the highest and lowest PEF expressed as a percentage of the average PEF.

Pulmonary Rehabilitation during COVID 19 pandemic: Currently most Pulmonary Rehabilitation Services are suspended, services maybe supporting patients to exercise at home. Please refer patients as usual to your local PR service for providing support via remote consultation. Patients can also be directed to <https://www.blf.org.uk/support-for-you/coronavirus> for information on how to remain active.

References:

- BTS. 2020. COPD and COVID-19 for Healthcare Professionals. Version 1. Viewed 31.08.20. <https://www.brit-thoracic.org.uk/document-library/quality-improvement/covid-19/copd-and-covid-19-for-healthcare-professionals/>
- Primary Care and Community Respiratory Resource Pack for use during COVID19 version 7
- PCRS UK Pragmatic guidance: consensus document issued on 01/06/20