

## Factsheet 45

Updated on 21 May 2021

## Spirometry

*This factsheet has been designed for use by healthcare professionals only.*

Key diagnostic tools such as Spirometry has been put on hold due to the COVID-19 pandemic within many areas in primary care.

The Association for Respiratory Technology and Physiology (ARTP) alongside with several other bodies have produced a series of documents which highlight areas which should be reviewed to support the restoration of spirometry services by mitigating risk to both staff and patients.

Let's start by looking at who should perform spirometry.

### Who should perform spirometry?

Spirometry should be performed by an appropriately trained healthcare professional who is certified and registered as competent with the ARTP. Details of the national certification process are outlined on the [ARTP website](#).<sup>1</sup>

### When should spirometry be performed?

[This document from ARTP](#) reinforces that:

*"Spirometry is performed as part of the diagnostic pathway. Adult patients presenting with symptoms indicative of a respiratory diagnosis should have a full clinical assessment performed, including history and examination, by an appropriately qualified clinician. Spirometry may be performed as one of the tests to help confirm a diagnosis, if appropriate. There is a recognised list of relative and absolute contraindications to performing spirometry that trained operators will be familiar with. In addition, spirometry should not be performed if the patient has any symptoms of COVID-19 infection at the time of the test, or if they are known to have recently been in contact (within previous 10 days) with a confirmed case."<sup>1</sup>*

### What are the implications of COVID-19 on spirometry?

Recommendations for undertaking risk-managed spirometry (ARTP 2021) outline that the exact number of patients caught in the backlog for diagnostic spirometry is not known. However, evidence suggests that there are around 200–250 patients per 500,000 population. (Please note these figures are based on estimates from a CCG database of patients newly prescribed inhaled bronchodilators in the absence of systematic evidence).<sup>1</sup>

However, this number needs to be taken exercised with caution since underlying levels of respiratory disease may vary in regions and areas.<sup>1</sup>

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### Undertaking risk managed spirometry

The document clearly highlights areas which need to be analysed in order to minimise the risk of infection to patients and staff whilst undertaking spirometry. Some of these areas include:<sup>1</sup>

- Pre-screening considerations
- The use of a single bacterial/viral filter
- Awareness and use of strategies to reduce cough and transmission of particles
- Guidance around the use of extraction fans
- PPE that is needed
- COVID-19 Vaccinations

It is important to use [this document](#) in addition to your local risk infection policies.

You can find further details around the Education for Health Spirometry Interactive Blended Online Learning [here](#).

#### References:

<sup>1</sup>ARTP (2021) Available from:

[https://www.artp.org.uk/write/MediaUploads/Standards/COVID19/ARTP\\_PCRS\\_spiro\\_restart\\_FINAL2.pdf](https://www.artp.org.uk/write/MediaUploads/Standards/COVID19/ARTP_PCRS_spiro_restart_FINAL2.pdf)

#### The following articles are useful to support your knowledge around spirometry:

- Home spirometry in patients with idiopathic pulmonary fibrosis: data from the INMARK trial Available at: <https://erj.ersjournals.com/content/early/2020/12/17/13993003.01518-2020>
- Drive through spirometry Available at: <https://www.nwangliaft.nhs.uk/about-us/trust-news/local-hospitals-launch-new-drive-through-respiratory-clinic/>
- At home spirometry Available at: <https://www.england.nhs.uk/2020/06/thousands-of-patients-to-benefit-from-nhs-at-home-roll-out/>
- Home Monitoring for patients with lung diseases during COVID-19 Available at: <https://www.ouh.nhs.uk/news/article.aspx?id=1509>