Restarting Spirometry Services and How to Minimise the Risk

The Association for Respiratory Technology and Physiology (ARTP) and Primary Care Respiratory Society (PCRS) recently released documents to aid in the restoration of spirometry services[3],[4]. They offer guidance on how spirometry services can be restarted and delivered safely. The previous two documents in May[1] and August[2] 2020 greatly reduced or ceased spirometry testing across the UK due to the risk of COVID-19 infection for both clinicians and patients.

The demand for lung function testing is expected to increase significantly over the coming months and years. In addition to the significant backlog of spirometry tests in the short-term, it is likely that more tests will be needed to determine the presence and nature of lung damage that has occurred in a growing number of COVID-19 patients. It is vitally important, therefore, that spirometry services are safely restarted across the UK. Website addresses for the ARTP and PCRS documents can be found below.

Why is SpiroConnect so well suited to spirometry testing during the COVID-19 pandemic?

SpiroConnect is a highly accurate and simple to use wireless PC based spirometer. It is fully integrated with the EMIS, SystmOne and Vision clinical systems through Numed's I[3] software. SpiroConnect is ideally suited to community diagnostic hubs, in-car spirometry and post-COVID clinics, due to its Bluetooth connectivity. This allows the clinician to be isolated from the patient, offering protection should a coughing event occur.

SpiroConnect communicates with a desktop, laptop or tablet computer through glass or one or more plastic safety screens, at a range of up to 20 metres. Because of this unique feature, full spirometry tests can be performed with the patient seated away from the respiratory nurse/technician in an isolated room/booth, behind a safety screen, or in their own car (with window completely closed), minimising the risks associated with a coughing event. This helps spirometry clinics and hubs to deliver spirometry testing with high levels of safety.

Other safety points worth noting considering the ARTP and PCRS guidelines:

- Numed's viral/bacterial spirometry filters can be used with SpiroConnect, giving 99.99% viral/bacterial filtration at a flow rate in excess of 750 litres/min (well in excess of that stipulated by the European Respiratory Society). Please speak to Numed to ensure you purchase the correct size of filter.
- The SpiroConnect turbine can be very quickly and easily disinfected between patients in a solution of PeraSafe (this takes just 10 minutes).
- Anti-viral/bacterial wipes (e.g. Clinell) can be used to quickly disinfect the other parts of the SpiroConnect spirometer before use on the next patient.
- Anti-viral surgical masks (MHRA approved) are now available from Numed. They use unique Copper nanoparticle technology to protect both the wearer and those in close proximity by killing pathogens including Coronaviruses. Visit the Infection Control section of the Numed website for full details.
- Rental options are available for SpiroConnect. Starting from £39 + VAT/month per device, it is an inexpensive way to acquire new equipment for your service.

References

[1] ARTP, Respiratory Function Testing During Endemic COVID-19 (May 2020)

[2] ARTP, Practical Guidance for Increasing Lung Function and Sleep Activity During COVID-19 (Aug 2020)

[3] ARTP, Recommendations for Undertaking Risk-managed Spirometry (April 2021)

[4] PCRS, Guidance on Reinstating Spirometry in England (April 2021)

Full details can be found on the ARTP and PCRS websites:
https://www.artp.org.uk/COVID19 https://www.pcrs-uk.org/coronavirus

For more information about using the SpiroConnect spirometer to help restore your spirometry service, please visit **www.numed.co.uk/spiroconnect**, email **info@numed.co.uk** or call our sales team on **0114 243 3896.**