GUIDANCE FOR THE RESUMPTION AND CONTINUATION OF URGENT AND ELECTIVE OUTPATIENT RESPIRATORY SERVICES: PART 2

INTRODUCTION

This document should be used and read alongside 'Guidance for the Resumption and Continuation of Urgent and Elective Outpatient Respiratory Services: Part 1' which addresses general principles including risk assessment and the additional challenges to respiratory services when resuming or continuing after COVID-19. This can be found at: https://brit-thoracic.org.uk/about-us/covid-19-resumption-and-continuation-of-respiratory-services/

This second section addresses the key areas of lung function testing, sleep physiology and bronchoscopic procedures as they have specific considerations.

Specific guidance about pulmonary rehabilitation and long-term ventilation services will be included in part 3 which will address specific considerations applicable to other specialist services.

The British Thoracic Society and many other organisations have produced a considerable number of COVID-19 guidelines for specific circumstances and conditions including follow-up. These will be referenced throughout this document and can be accessed or are linked at: https://brit-thoracic.org.uk/about-us/covid-19-information-for-the-respiratory-community/

This is an evolving field and this document will be updated when new information is available.

1. LUNG FUNCTION TESTING

1.1 Overview

Lung function testing is key to the diagnosis, management and monitoring of respiratory disease. In addition, it is used for risk assessment before major surgery. Detailed guidance has been produced by BTS and ARTP and is available here:

https://www.artp.org.uk/News/artp-guidance-respiratory-function-testing-and-sleep-services-during-endemic-covid-19

This guidance addresses adult testing predominantly but several aspects are applicable to children.

The required test depends upon the underlying clinical problem but for the majority of patients it will involve breathing into equipment. This often produces a cough and as such is potentially an aerosol generating procedure (AGP) with the need for appropriate precautions.

Tests such as blood gases and simple field exercise tests (shuttle walk test and 6 minute walk test) are not deemed to be AGP but precautions are still necessary, as per PHE recommendation.

Many respiratory services cannot be restored without lung function facilities being available. For example spirometry is essential for the assessment of obstructive lung disease, spirometry/gas transfer/cardiorespiratory exercise testing is essential for lung cancer and spirometry plus gas transfer is needed to assess interstitial lung disease.

1.2 Specific problems in the restoration or continuation of lung function testing

The considerable problem restoring services is the 'perfect storm' of increased demand (additional work from COVID-19 added to a backlog of cancelled tests) and reduced resource and efficiency (long-standing staff shortage plus reduced throughput caused by measures to protect patients and staff). This includes:

1. an increased demand for physiology testing around the need and ongoing requirements for oxygen therapy in people recovering from COVID-19.
2. additional new tests are needed to determine the presence and nature of the lung damage that has occurred in as many as 35% of COVID positive patients as described in the 'BTS Guidance on Respiratory Follow Up of Patients with a Clinico-Radiological Diagnosis of COVID-19 Pneumonia': https://www.brit-thoracic.org.uk/about-us/covid-19-information-for-the-respiratory-community/#bts-guidance-on-respiratory-follow-up-of-patients-with-radiologically-confirmed-covid-19-pneumonia
3. the need for physiologists to continue supporting the acute use of CPAP/NIV on wards as endemic COVID-19 will now be looked after mainly by respiratory teams and ITU.
4. the huge backlog that has arisen as a consequence of physiology services ceasing early coupled with the huge turnover that normally occurs, e.g. an estimated 10,000 sleep studies, 20,000 spirometry tests and 15,000 full pulmonary function tests are performed per month in England.

These matters need to be considered in the setting of workforce capacity. On top of the long standing staff shortages in physiology individuals will be off from work due to COVID-19 or actually shielding.

1.3 New considerations in the restoration or continuation of lung function testing

Some individual aspects are considered in greater detail in Part 1: https://brit-thoracic.org.uk/about-us/covid-19-resumption-and-continuation-of-respiratory-services/

Patient and staff safety is paramount and when tests need to be performed there are several important considerations which are provided in detail here: https://www.artp.org.uk/write/MediaUploads/Standards/COVID19/Respiratory_Function_Testing_During_Endemic_COVID_V1.5.pdf

2 SLEEP SERVICES

2.1 Overview

Sleep services comprise a series of diagnostic and treatment functions for a wide spectrum of disorders and are run by doctors, nurses, physiologists/scientists within a range of specialties including respiratory, neurology, anaesthesia and others.

Detailed guidance has been produced by BTS and ARTP and is available here:

https://www.artp.org.uk/News/artp-guidance-respiratory-function-testing-and-sleep-services-during-endemic-covid-19

2.2 Specific problems in the restoration or continuation of sleep services

They are high volume services with some 12,000 diagnostic sleep tests per month, across England, many to exclude or confirm the diagnosis of obstructive sleep apnoea. Services closed early and several are associated with AGP, such as administration of CPAP and NIV. As a consequence there are specific issues to consider. These include:

1. the need for all staff to continue supporting the acute use of CPAP/NIV on wards as endemic COVID-19 will now be looked after mainly by respiratory teams and ITU.
2. the huge backlog that has arisen as a consequence of physiology services being closed early coupled with the huge turnover that normally occurs, leading to difficulties in restoration of services.

3. the difficulties in the initiation of CPAP and NIV given their aerosol generating nature (AGP). This will lead to reduced throughput with increased turnaround times and exacerbate the significant backlog that already existed in many sleep departments prior to COVID-19.

In the recent past there have been variable pathways of care but the closure of face-to-face services has forced changes in pathways that may be even better for patients, although this requires formal evaluation. If evaluated positively, these need to be established as part of normal business in the context of local circumstances. However, there needs to be recognition of the financial implications of such changes with tariffs and commissioning adjusted appropriately.

2.3 New considerations in the restoration or continuation of sleep services

Simple precautions

Similar precautions to pulmonary physiology need to be considered as detailed in section 1.3 above.

PPE appropriate to PHE recommendation needs to be worn. If there is a plan to directly initiate NIV or CPAP (i.e. to turn on the machine while it is connected to the patient) then PPE appropriate for AGP must be worn (FFP3 respirator, long-sleeved gown, gloves, eye protection) as per PHE recommendations.

Specific processes

Detailed guidance on specific processes including the performance of sleep studies, reviewing results with patients, initiation of CPAP, follow up of patient with CPAP and full polysomnography (PSG) is provided here:

https://www.artp.org.uk/write/MediaUploads/Standards/COVID19/Sleep_Services_During_Endemic_COVID-19_Version_1.4.pdf

3. BRONCHOSCOPIC PROCEDURES

3.1 Overview

Bronchoscopy refers to flexible, rigid, interventional bronchoscopy and endobronchial ultrasound. Bronchoscopic procedures are aerosol-generating procedures (AGPs) and indications for bronchoscopy should take into account the potential for transmission of COVID infection.

The indication for bronchoscopy for patients with non-malignant conditions should be carefully evaluated and where it is optimal to proceed, although alternative strategies are an option, the final decision should be shared with the patient.

BTS has produced guidance on bronchoscopic procedures which has now been updated to reflect the endemic phase of COVID-19 including advice on : https://brit-thoracic.org.uk/about-us/covid-19-information-for-the-respiratory-community/#guidance-on-bronchoscopy]

British Thoracic Society

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