

Home Spirometry

Information for patients about the home spirometry service using the Spirobank SmartTM device

Introduction

This leaflet has been developed to provide you with information on the home spirometry service and will help to answer any questions you may have. You can discuss home spirometry with your interstitial lung disease (ILD) specialists and the IQVIA team before you start using the service, so you are able to make an informed decision.

Spirometry is a basic breathing test which measures the amount of air that you can blow out as fast as you can. It is useful to monitor your condition, response to treatment and any progression of your lung disease.

This test is normally undertaken in the lung function department or respiratory clinic at the hospital. We want to know if home spirometry is helpful and a useful way to monitor your lung condition at home.

What do you need to participate

You will need:

- A smart device (iOS 8 or higher / Android 4.4 or higher) with Bluetooth Smart 4.0 or higher connectivity.
- Internet access to download the MIR iSpirometryTM App and regularly send the spirometry results to your specialist ILD team.
- To be able to communicate with your ILD specialist team including reading written instructions and completing questionnaires.

IQVIA

The IQVIA team work with your ILD specialist team to arrange delivery of the home spirometer, guide you through set up of the Spirobank SmartTM device, downloading and connecting to the MIR iSpirometryTM App, using the spirometer and sending us the results.

They will continue to provide support at home if you need help with your device or are unsure of the technique.

The set up process

Your ILD specialist team completes registration form and sends to IQVIA by email.



IQVIA nurse calls you to introduce themselves, discuss the service, confirm you want to participate and arrange the training.



IQVIA nurse sends the Spirobank SmartTM to you and sets up a training session at home where they guide you through setting up the device, MIR iSpirometryTM App and demonstrate use of the spirometer.



IQVIA nurse gives you a follow up call to check for any issues using the Spirobank SmartTM device and MIR iSpirometryTM App and provides their contact details in case of any issues.

Home Spirometry

The IQVIA nurse will guide you on how to perform the spirometry test. We would like you to perform a **single blow** on the home spirometer on a **weekly** basis. The MIR iSpirometer™ App will request a repeat blow if it feels the blow was not quite right. If you are having trouble with your Spirobank Smart™ device, please contact the IQVIA team.

Once you have an acceptable reading, **this will need to be sent to your ILD specialist team via email at:**

rde-tr.ildhomemonitoring@nhs.net

It is important to get in touch with your specialist team if you have any concerns and/or feel unwell.

We will not be monitoring your results on a live or weekly basis. However, all of your results will be collected and reviewed by your specialist ILD team at certain time intervals.

We will compare your home spirometry reading to your latest laboratory based lung function tests. Your baseline forced vital capacity (FVC) is _____ (L).

It is normal for your FVC to go up and down a little bit. If you are feeling unwell or your symptoms are getting worse, your FVC may go down more.

If your FVC falls by more than 10%, we recommend repeating your FVC on a daily basis.

If your FVC has fallen by more than 10% on 3 consecutive days, you should contact your specialist ILD team via the usual route. More than 10% fall in your FVC is _____ (L).

Spirometry – Technique

Please note your FVC may reduce due to technique. Ensure you perform the test correctly to obtain an accurate result:

- You should perform the test sitting, upright, neck at 90 degree angle facing forward – it is important to be consistent every time.

- Take a deep, full and fast breathe in (the more you breathe in the more you can breathe out).
- As soon as you feel full, do not hesitate and blow out.
- Blow out as fast as you can – this is to obtain the FEV1 (Volume exhaled in the first second of forced expiration).
- Continue to blow for as long as you can.
- You may feel you are empty but try to maintain the blow for as long as possible – the longer you blow out the more accurate the FVC result.
- It is common to feel lightheaded or cough, make sure you are sitting comfortably and have a glass of water.

To get the best reading each time, we recommend you:

- try not to smoke in the 24 hours before the test.
- try not to drink alcohol on the day of the test.
- avoid eating large meals 2 hours before the test.
- avoid vigorous exercise 30minutes before the test.
- wear non-restrictive comfortable clothing.

You can watch videos on how to set up and use the spirometer device by visiting the webpage MIR Spirobank Smart Remote Home Spirometry Testing:

<https://www.mirspirometer.co.uk/spirobank-smart>

Contacting your specialist ILD team

You should contact your specialist ILD team as and when you need. If you have any concerns about your symptoms, lung condition and/or the home spirometry service, please do not hesitate to call the ILD helpline or email in the usual way.

Duration

We recommend you perform the home spirometry test on a weekly basis. Use of this service is additional to your routine follow up and hospital pulmonary function tests, it does not replace them. You can decide to stop using the home spirometry service at any point, for any reason. If you decide not to continue, please return your Spirobank Smart™ device to theILD team in Exeter so that it can be cleaned and reused.

Please stop using home spirometry and contact your specialistILD team to inform us if you have any of the following:

- Pneumothorax (collapsed lung)
- Recent heart attack or stroke
- Uncontrolled angina
- Aneurysm
- Pulmonary embolism
- Ischaemic heart disease or high blood pressure
- Recent thoracic, eye or abdominal surgery
- Perforated ear drum

Your Spirobank Smart™ device is intended for your use only. Please do not share the device with anyone else.

Notes

Glossary

IQVIA - Quintiles and IMS Health, Inc., is a company serving the combined industries of health information technology and clinical research.

ILD – Interstitial Lung Disease.

Spirometry – Spirometry is a breathing test used to help diagnose and monitor lung conditions by measuring how much and how fast you can breathe out in one forced breath.

FVC – Forced Vital Capacity - the total volume of air that can be exhaled during a maximal forced expiration effort.

FEV1 - Volume that has been exhaled during the first second of a forced expiration.

Contact details

ILD Helpline

If you have any questions or concerns about your condition, please call our helpline.

Telephone: 07395 283159 (this is an answerphone service; we aim to respond to your call within office hours (except weekends and bank holidays).

Email: rde-tr.ildhomemonitoring@nhs.net

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS):

Telephone: 01392 402093

Email: rde-tr.PALS@nhs.net

NHS 111

This service offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

Telephone: 111

Website: www.111.nhs.uk

NHS website

This website gives information and guidance on all aspects of health and healthcare, to help you take control of your health and wellbeing.

Website: www.nhs.uk

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