

English



Innovation in Spirometry Oximetry Telemedicine



Contact MIR at 844-4MIRUSA

*for MIR USA Sales Support & Service,
Monday to Friday 8:00am to 5:00pm (central time)*

www.spirometry.com

www.oximetry.com

MIR Group Organization

MIR Medical International Research

(Headquarters)

Rome - ITALY

Research & Development

Designing

Marketing

Warehouse

Distribution (Worldwide)

MIR PRODUCTION

Teramo - ITALY

Warehouse

Assembling

Testing

MIR SERVICE

Rome - ITALY

Quality Control

Service

MIR Medical International Research USA, Inc.

Wisconsin - USA

Warehouse

Distribution (US Market)

Service

MIR FRANCE (Partnership)

Montpellier - FRANCE

Distribution (France and North Africa)

Service

Mir
USA



Mir
Teramo



Mir
France



Mir
Rome



About MIR

MIR is a global medical device company founded in 1993, and today is present in more than 93 countries worldwide.

For more than 20 years the company has been internationally recognized for its numerous innovations and advancements in three different market areas: Spirometry, Oximetry and Telemedicine.



MIR offers advanced technological solutions and manufactures accurate and reliable medical instruments which have become milestones in Pulmonary Function Screening and Clinical Trials.



reddot design award

One of the distinctive features of the MIR products is their exclusive design which has been awarded repeatedly at an international level with the prestigious Reddot design award.



The cornerstone of our Spirometry technology is the FlowMIR the first and only internationally patented DISPOSABLE TURBINE.

Telemedicine



Spirometry

Oximetry

The new range of MIR products meet the needs of clinicians, physicians and patients. In addition to connecting to PC-Windows via USB and Bluetooth[®], MIR provides the ability to connect to Tablets and Smart Phones, an ideal solution for customers who wish to use these technologically advanced devices combined with our diagnostic instruments.

MIR is able to provide customizable solutions and tools which empower systems integrators involved in Home Care and Clinical Trials projects.

**INTERNATIONAL
PATENTED**

✓ FlowMir® disposable turbine
Item Code 910004



FlowMir®

Disposable Turbine Flowmeter
MIR exclusive product
International patent

Each turbine, which includes a cardboard mouthpiece, has been individually factory tested with a computerized system

Pre-calibrated and cross contamination free

It comes standard in a dispenser of 50 pcs

FlowMIR® is an inexpensive alternative to a costly reusable flowmeter and replaces the need for an antibacterial filter

A full Spirometry session can be performed, including a Bronchial Challenge and POST Bronchodilator test



MIR Disposable Turbine



Also available with
MIR Reusable Turbine

✓ **Item Code 910002**



Comfortable
Packaging



Singularly Tested
and Packed



Eliminates staff
clean-up time



No Sterilisation



No Calibration



No Cross
Contamination



No Antibacterial
Filter



Always 100%
accurate and hygienic



ATS/ERS Compliant
for accuracy



Not affected by
Vapour Condensation



Not affected by
Ambient conditions



The Best Sensor
for Spirometry



✓ Smart One®
Item Code 911100



Smart One® is always connected wirelessly to Bluetooth Smart and Bluetooth Smart Ready devices with extremely low battery consumption.

Smart One®*

Peak Flow and FEV1
now available on your Smart Phone



Simple and lightweight to carry on the go

Smart One® has been designed to satisfy the growing demand for wireless devices capable to connect to the new generation of Android and iOS Smart Phones and Tablets

Ideal for monitoring respiratory illnesses and in the self management of Asthma, COPD, Lung Transplant care, Cystic Fibrosis and for use in Clinical Trials

Symptoms selection and easy scoring system with the option of multiple tapping to identify the intensity



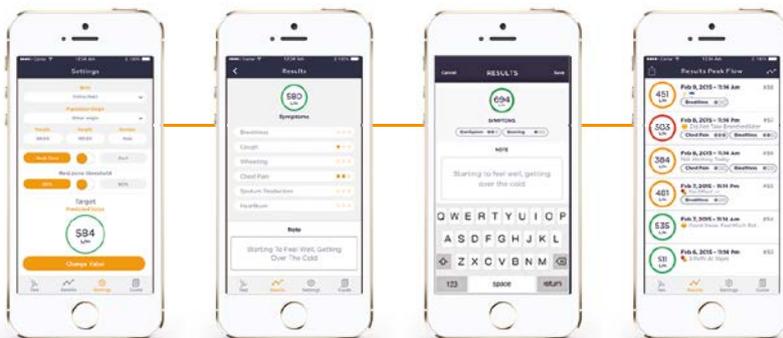
Smart One® comes with an App that includes an **exclusive Incentive for adults and children** based on both exhaled Flow and Volume that is helpful in improving subject's compliance

New turbine flowmeter with plastic mouthpiece for personal use easy to remove for cleaning

Upon request, MIR offers customizable protocols to allow third party developers to run their own App and provides ad-hoc tools in order to facilitate and empower systems integrators engaged in Health Care and Clinical Trials projects



OEM Versions Available
MIR's knowledgeable staff is available to provide support to industrial partners that wish to OEM Smart One® and extend their range of diagnostic products



Graphic trend of Peak Flow or FEV1 measurements including option to flag any test session. Test results history with Peak Flow, traffic light health indicator, symptoms scoring and notes

*FDA Pending

1 Spirolab® Spirometer with Bluetooth
Item Code 911080

2 Spirolab® Spirometer with Bluetooth and Oximeter
Item Code 911081



Spirolab® Bluetooth®

7 inch Touchscreen

All in one portable Desktop Spirometer with Oximetry option

Wireless Real Time test on PC via Bluetooth®

Database up to 10,000 Spirometry tests or 900 hours of Oximetry recording

Fast and silent built-in printer with customizable printout format

Long life Rechargeable Battery



Each function can be activated by a simple touch on the intuitive bar menu always present on the screen



Always included: Winspiro PRO® PC software with free update



Optional function available:
Oximeter with adult or paediatric finger probe



Available with both DISPOSABLE or REUSABLE turbine flowmeter



Spirometry test: FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison with a wide range of selectable parameters



Always included free, robust carrying case



MIR exclusive patent:
Paediatric incentive system directly on the screen, helpful to improve patient compliance during a Spirometry test

Spirometry parameters

FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FEV1/PEF, FEV1/FEV0.5, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, t_i, t_E, VT/t_i, t_E/t_{TOT}, MVV measured, MVV calculated

Oximetry parameters only available with oximetry option (optional)

%SpO₂ and Pulse Rate (Min, Max, Average), Test duration, Total SpO₂ Events, T90% (SpO₂ time ≤89%), T89% (SpO₂ time ≤88%), T40 (Bradycardia duration with Pulse Rate <40 BPM), T120 (Tachycardia duration with Pulse Rate >120 BPM)

1 Spirodoc® Spirometer
Item Code 910600

2 Spirodoc® Spirometer
with Oximeter
Item Code 910610



3 Spirodoc® Oximeter only
Item Code 910606



Spirodoc® Bluetooth®

3 in One: Touchscreen Spirometer, Oximeter® and eDiary

Detachable flowmeter head to facilitate Oximetry test during 6 Minute Walk Test

Wireless Real Time test on PC via Bluetooth® or USB

Long life Rechargeable Battery

Unique feature: can be configured for both Doctor's Office or for Patient Home use



Always included: Winspiro PRO® PC software with free update



Optional function available:
Oximeter with adult or paediatric finger probe



Available with both DISPOSABLE or REUSABLE turbine flowmeter



Spirometry test:
FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison with a wide range of selectable parameters

Available with:

adult or paediatric finger probe including device holder with belt for easy Sleep test Desaturation Analysis, 6 Minute Walk Test and daytime Physical Activity Measurement coupled with Desaturation Events

Spirometry parameters

FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, Lung Age, Extrap. Volume, FET, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, VC, IVC, IC, ERV, Rf, VE, VT, ti, te, VT/ti, te/tTOT, MVV measured, MVV calculated

6 Minute Walk Test (specific parameters)

O2-Gap, Estimated Distance, Walked Distance, Predicted Distance (Min, Standard), TΔ2% (SpO2≥2%), TΔ4% (ΔSpO2≥4%), Time (Rest, Walking, Recovery), Desaturation Area/Distance Optional data entry: Borg Dyspnea (Baseline, End, Change), Borg Fatigue (Baseline, End, Change), Arterial blood pressure (Systolic, Diastolic), gen administered

Oximetry parameters

SpO2 and Pulse Rate (Baseline, Min, Max, Average), T90% (SpO2<90%), T89% (SpO2<89%), T88% (SpO2<88%), T5% (ΔSpO2>5%), ΔIndex (12s), SpO2 Events, Pulse Rate Events (Bradycardia, Tachycardia), Step counter, Physical Activity (VMU), Recording time, Analysis time

Sleep analysis (specific parameters)

Body position, SpO2 Events, Desaturation Index (ODI), Desaturation (Mean Value, Mean duration, Longest duration, Nadir Peak), ΔSpO2 (Min Drop, Max Drop), Total Variations, Pulse Rate Index, NOD89% (SpO2<89%; >5min), NOD4% (SpO2 Basale-4%; >5min), NOD90% (SpO2<90%; Nadir<86%; >5min)



Spirobank II[®]

Spirometer with Oximetry option.
4 versions available

On screen results and curves preview for immediate data assessment

Wireless Real Time test on PC via Bluetooth[®] and USB

Memory up to 10.000 Spirometry tests or 900 hours of Oximetry recording

Long life rechargeable battery



Always included: Winspiro PRO[®] PC software with free update



Optional function available:

Oximeter with adult or paediatric finger probe (for Advanced, Advanced Plus and Smart versions)



Available with both DISPOSABLE or REUSABLE turbine flowmeter



Also available for iPad (Smart version)

Main spirometry parameters available on **Smart version**
using new iSpirometry App:
FVC, FEV1, FEV1%, PEF, FEF25-75, FET, Lung Age, VC, IVC

Optional Oximetry parameters available on **Smart version**
using new iOximetry App:
%SpO2 and Pulse Rate (Min, Max, Average)

Main Spirometry parameters available on **Basic, Advanced and Advanced plus** version:
FVC, FEV1, FEV1%, PEF, FEF25-75, FET, Extrap. Volume, Lung Age, VC, IVC, IC, ERV

Spirometry parameters available on **Advanced and Advanced plus** version:
FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, FEF75-85, Lung Age, Extrap. Volume, FET, Time to PEF, FEV0.5, FEV0.5/FVC, FEV0.75, FEV0.75/FVC, FEV2, FEV2/FVC, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, FIF25, FIF50, FIF75, FEF50/FIF50, VC, IVC, IC, ERV, IRV, Rf, VE, VT, t_f, t_E, VT/t_f, t_E/t_{TOT}, MVV (measured), MVV (calculated)

Oximetry parameters available on **Advanced and Advanced plus** version:
%SpO2 and Pulse Rate (Min, Max, Average), Test duration, Total SpO2 Events, T90% (SpO2 time ≤89%), T89% (SpO2 time ≤88%), T40 (Bradycardia duration with Pulse Rate <40 BPM), T120 (Tachycardia duration with Pulse Rate >120 BPM)

Spirobank II[®]

Smart, Basic, Advanced, Advanced Plus

Including *iSpirometry[®]* and *iOximetry[®]* App for iPad



SPIROBANK II[®] SMART

Spirometer

1 Item Code 911028

Spirometer with Oximeter

2 Item Code 911029

Including *Winspiro PRO[®]* Software for PC



SPIROBANK II[®] BASIC *Simplified Spirometer*

3 Item Code 911021

SPIROBANK II[®] ADVANCED *Spirometer with Oximetry option*

4 Item Code 911020

SPIROBANK II[®] ADVANCED+ *Spirometer and Oximeter*

5 Item Code 911025

	Smart	Basic	Advanced	Advanced plus
iPad Software	✓	—	—	—
PC Software	✓	✓	✓	✓
High resolution display	✓	✓	✓	✓
Traffic light indicator	✓	✓	✓	✓
Main Spirometry parameters	✓	✓	✓	✓
Additional Spirometry parameters	✓*	—	✓	✓
POST Bronchodilator test	✓	✓	✓	✓
Bluetooth Smart	✓	—	—	—
Bluetooth 2.1	—	—	✓	✓
Oximeter	○	—	○	✓
Battery charger	○	—	○	✓

* Available only using PC

✓ Standard — Not Available ○ Optional

1 Minispir® Spirometer
Item Code 911000



2 Minispir® Spirometer with Oximeter
Item Code 911010



Minispir®

Computer-based Spirometer with Oximetry option

Real time Flow/Volume and Volume/Time curves with PRE/POST Bronchodilator comparison on your PC using Winspiro PRO® software

Includes a wide range of selectable parameters

Spirometry test interpretation



Always included: Winspiro PRO® PC software with free update



Available with both DISPOSABLE or REUSABLE turbine flowmeter



Optional function available:
Oximeter with adult or paediatric finger probe



Spirometry test: FVC, VC, IVC, MVV, PRE/POST Bronchodilator comparison with a wide range of selectable parameters

Spirometry parameters

FVC, FEV1, FEV1/FVC, FEV1/VC, PEF, FEF25, FEF50, FEF75, FEF25-75, Lung Age, Extrap. Volume, FET, FEV3, FEV3/FVC, FEV6, FEV1/FEV6, FIVC, FIV1, FIV1/FIVC, PIF, VC, IVC, IC, ERV, Rf, VE, VT, t_I, t_E, VT/t_I, t_E/t_{OT}, MVV

Oximetry parameters (optional)

%SpO₂ and Pulse Rate (Min, Max, Average), T90% (SpO₂<90%), T89% (SpO₂<89%), T88% (SpO₂<88%), T5% (ΔSpO₂>5%), Δ Index (12s), SpO₂ Events, Pulse Rate Events (Bradycardia, Tachycardia)

	Minispir®	Minispir® Oximetry
Spirometry Test	✓	✓
Pulse-Oximetry Test	○	✓
Spirometry Parameters	✓	✓
Oximetry Parameters	○	✓
Post BD	✓	✓
Bronchial Challenge Test	✓	✓
Winspiro Pro®	✓	✓
Winspiro Pro® Net	○	○

✓ Standard — Not available ○ Optional

1 Minispir® Spirometer Light
Item Code 911001



2 Minispir® Spirometer Light
Post BD Edition
Item Code 911003



Minispir Light®

Simplified Computer-based Spirometer

Real time Flow/Volume and Volume/Time curves on your PC using Winspiro Light® software

COPD and Asthma screening have never been so intuitive and inexpensive

Includes a wide range of selectable parameters

Spirometry test interpretation



Always included: Winspiro Light® simplified PC software with free update



Available with DISPOSABLE turbine flowmeter



Optional function available: POST Bronchodilator software feature



Spirometry test: FVC, VC, IVC, POST.

Spirometry parameters

FVC, FEV1, FEV1%, FEV6, PEF, FEF25-75, FIVC, Lung Age, VC, IVC

	Minispir Light®	Minispir Light® Post BD Edition
Spirometry Test	✓	✓
Pulse-Oximetry Test	—	—
Spirometry Parameters	✓	✓
Oximetry Parameters	—	—
Post BD	—	✓
Bronchial Challenge Test	—	✓
Winspiro Pro®	—	—
Winspiro Pro® Net	—	—

✓ Standard — Not available ○ Optional

✓ Spirotel® Spirometer Basic
Item Code 9107200



Embedded GSM Module with
SIM Card to send the test
results via Email (option)

Bluetooth® wireless communication (option)

Spirotel®

For Home use: Touchscreen Spirometer
and eDiary (optional oximeter)

The best solution for remote management in Asthma,
COPD, Cystic Fibrosis and Lung Transplant

Ideal for Clinical Trials with customizable protocols

Long life Rechargeable Battery

10.000 spirometry tests and 900 hours of oximetry
recording (option)



Optional function available: Oximeter with adult
or paediatric finger probe; Bluetooth module, GSM module



Always included: Winspiro PRO® PC software with free update



Easy integration in third party Telemedicine Platforms

Integrated with
2net
by Qualcomm Life



On screen oximetry real-time (option)



Customizable eDiary



Large selection of languages

MIR Software

MIR is world recognized for a wide range of software packages for specialists in respiratory illnesses, doctors and patients.

In order to best satisfy the numerous needs of customers, MIR's R&D team has developed a large number of software solutions. Please ask one of our sales representatives for customizable protocols and Apps available on request for special applications, innovative projects and Clinical Trials.

All MIR software are supplied with the guarantee of **free** update.

Professional software solutions for spirometry and oximetry



iSpirometry® & iOximetry®

iOS based

Simple and intuitive App for Spirometry and Oximetry test directly on your iPad and iPad mini



Winspiro PRO® & Winspiro PRO Net®

Windows based

Complete and powerful PC software package for Specialists. Includes Telemedicine and Home Care Management

 **Item Code 920215**



Spiro Connect Interface

Windows based

Measure, visualize and transfer test results. The perfect solution for direct integration of Spirometry and Oximetry test on your existing Electronic Medical Record

Basic software solution for spirometry



Winspiro Light®

Windows based

Simple and intuitive for essential Spirometry test



iOS based

iSpirometry® & iOximetry®

Simple and intuitive App for Spirometry and Oximetry test directly on your iPad

iOS based App for Real Time Spirometry and Oximetry on your Tablet

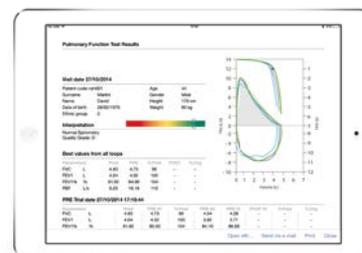
Innovative, easy to use, and powerful App that includes data transfer to a cloud system for backup or second opinion facility

Ideal for primary care

iSpirometry and iOximetry are new powerful Apps for Smart Phones and Tablets.

MIR exclusive patent:

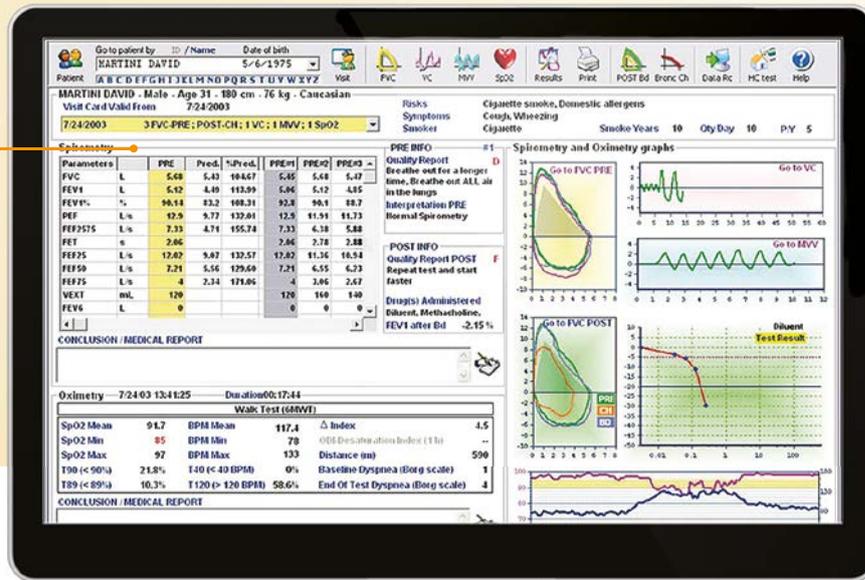
Paediatric incentive system directly on the screen, helpful to improve patient compliance during a Spirometry test



iSpirometry® and iOximetry® is an App for iPad and iPad mini, and free updates are guaranteed.

The App is provided on request with the Smart version of SpirobankII®, which is the MIR device that comes with embedded Bluetooth® Smart.

Screenshot summary of all tests carried out



Windows based

WinSpiro PRO® & WinSpiro PRO NET®

Complete and powerful PC software package for Specialists.
Includes Telemedicine and Home Care Management

WinSpiro PRO®

Customizable PC software for Spirometry, Oximetry and Telemedicine projects

- FVC, VC, IVC, MVV, Bronchodilator Reversibility, Bronchial Challenge with FEV1-response curve with protocols for both Methacholine and Mannitol
- Paediatric Incentive for Spirometry
- Home Care and Telemedicine management
- Quanjer 2012-GLI Predicted values with LLN and Z-score
- Patient Trend Charts for easy follow-up
- Search engine for instant access to data
- Specialized and customizable Printout
- Wide choice of communication protocols ... and more
- 3D Oximeter® management, O2Gap Index,
- Sleep Desaturation Analysis, 6 Minute Walk Test, Daytime Physical Activity Report coupled with Desaturation Events

WinSpiro PRO NET®

Item Code 920215

Network version of WinSpiro PRO® PC software with shareable database

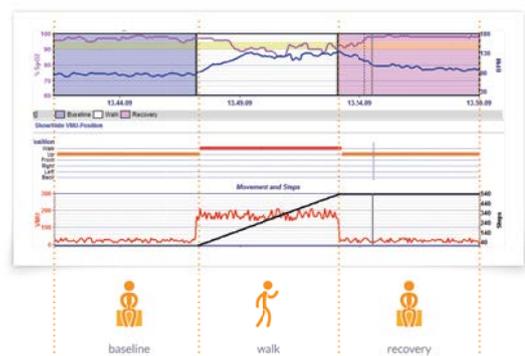
WinSpiro PRO® is compatible with Windows: XP, VISTA, 7 and 8 WinSpiro PRO®, it includes free updates, and is provided with Spirolab, Spirodoc, Spirobank II, Spirotel, Minispir, Spirobank G, Spirolab III

Sleep test



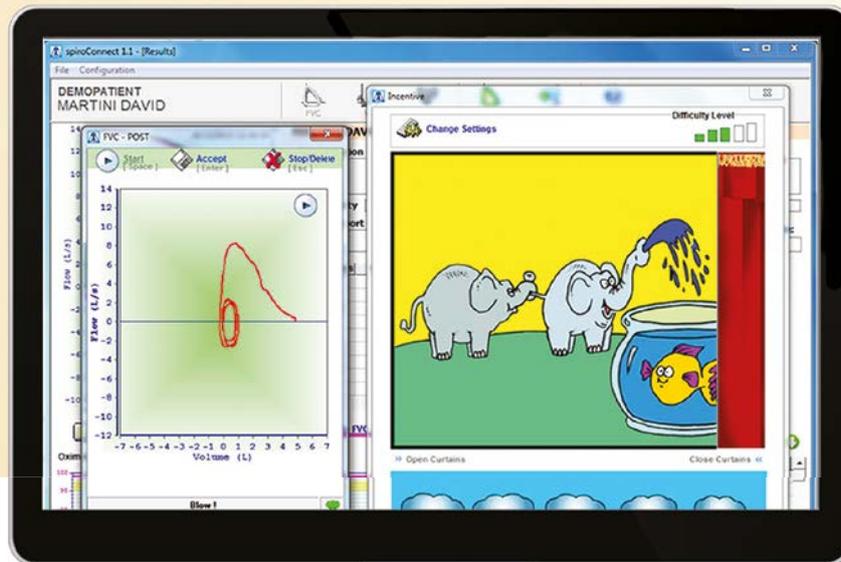
Events and Body Position recording

6 Minute Walk Test (6MWT)



Events and Physical Activity recording

WinSpiro PRO NET® includes free updates, and is provided on request.



Windows based

Spiro Connect

Measure, visualize and transfer test results.

The perfect solution for direct integration of Spirometry & Oximetry test on your existing Electronic Medical Record

PC software for direct integration with EMR

Innovative and simple to use tool to integrate a Real Time Spirometry and Oximetry test with an Electronic Medical Record (EMR) or a Medical Practice Management software

Spiro Connect performs tests as a Slave systems and is Database-less, therefore it is no longer necessary to duplicate the patient's information

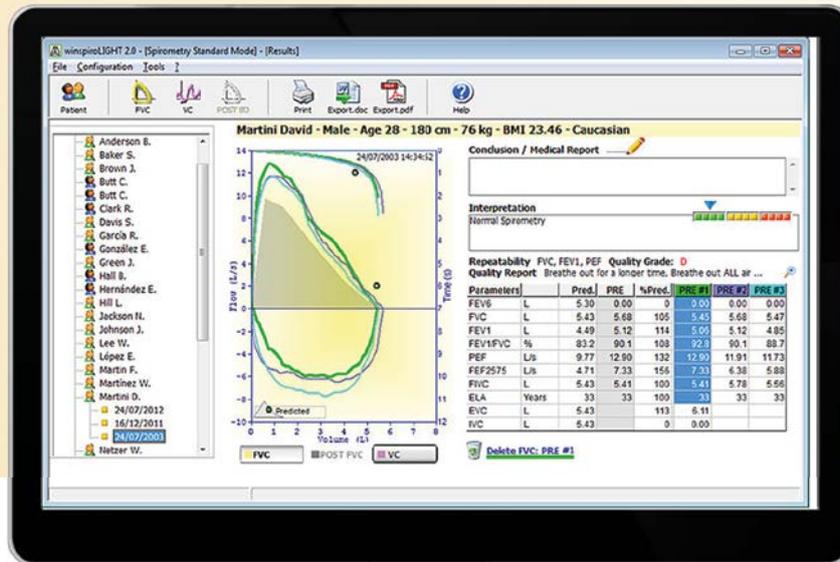
The essential patient data (age, height, gender, ethnicity) is sent just-in-time by the Master and is kept by Spiro Connect until medical test outcomes are sent back

Complete set of results is provided including main measured parameters, predicted values and graphic images for an easy integration process

Standardized communication in HL7 or Exchange Protocol

Detailed documentation on request and online support for all systems integrators

Spiro Connect is provided on request for special projects



Windows based

WinSpiro Light[®]

Simple and intuitive for essential Spirometry test

Software for Real Time Spirometry on your PC

Simple and intuitive user interface with one main screen with all functions available

Ideal for primary care and occupational medicine

For each session produces a report with the 3 best tests including both Flow/Volume loop and Volume/Time curves that can be exported in .DOC or .PDF format

Wide range of selectable predicted values



WinSpiro Light[®] includes free updates and is provided with Minispir Light[®] Spirometer



Optional function available: POST Bronchodilator software feature



Spirometry parameters

FVC, FEV1, FEV1%, FEV6, PEF, FEF25-75, FIVC, Lung Age, VC, IVC



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