

MediTech-PL

Respiratory Diagnostics

SMART PFT Nebulizer

- Integrated low-noise compressor – No external air source required.
- User-friendly LCD panel and Automatic control.
- Flow-based trigger sensor for Inhalation-synced nebulization.
- Standardized nebulizer with Programmable protocols.
- ATS and ERS compliant, CE marked.



SMART USB Spirometer

- Advanced precision using Variable Orifice Pneumatic flow sensor.
- Supports SVC, FVC Pre/Post, MVV, over 40 parameters.
- GII and Z-Scores, trend reporting, Paediatric incentive graph.
- SQL database with customizable reporting templates.
- Optional add-ons: P0.1 / MIP/MEP, ROCC, Rhinomanometry, Compliance.



Key Features

- High-performance spirometer featuring advanced precision technology and an extensive range of test options.
- Utilizes a highly accurate Variable Orifice Pneumatic flow sensor. Supports tests including SVC, FVC Pre / Post and MVV, with over 40 parameters available.
- Provides programmable challenge testing protocols.
- Fully CE marked.
- Offers latest **GLI** and **Z-Scores**.
- Includes trend reporting, Pre / Post comparison, and an incentive graph for paediatric testing.
- Employs an SQL database for robust data management.
- Delivers customizable reporting with a versatile template builder.

Optional add-ons: P0.1 / MIP / MEP, ROCC Rhinomanometry, Compliance, and Challenge Testing.

SMART CO Diffusion

- Single-Breath CO Diffusion Test – fast And reproducible.
- Online gas sampling for patients with Low vital capacity (From 0.8 L).
- Automated guidance for correct Breathing maneuvers.
- Fast NDIR Infrared gas analyzer for CO And CH₄.
- Built-in altitude compensation, minimal Consumables required.



Key Features

- Single-Breath CO Diffusion Test: Provides fast and reproducible CO transfer capacity assessments.
- Online Gas Sampling Method: Accommodates patients with very low vital capacity (Starting at approximately 0.8 L).
- Fully Automated Testing: Offers real-time guidance to ensure correct breathing maneuvers, with GLIs and the latest Z-Scores.
- Selective & Fast Infrared NDIR Gas Analyzer: Measures both transfer and inert gases (CO & CH₄).
- Demand Valve with Automatic Delivery: Supplies gas precisely, with no need for manual keyboard input.
- Altitude Compensation: Built-in ambient pressure sensor automatically adjusts for elevation changes.
- Minimal Consumables: Operates without costly absorber products or Nafion sampling lines.
- Fully CE marked.

Measured Parameters:

- DLCO, KCO, TLC, RV, FRC, VA, Tdiff, Hb, VIN (CH₄), and RV / TLC.

SMART Body Plethysmography

- Comfortable, height-adjustable chair
And spacious oval cabin.
- BTPS compensation via built-in
Sensors (Temp, pressure, humidity).
- Maintenance-free electromagnetic
Lock for patient safety.
- Accommodates reduced mobility
Patients with optional special chair.
- CE marked with optional parameters:
Challenge, Rhinomanometry, ROCC.



Key Features

- Height-Adjustable, Comfortable Chair
- Double-Door, Oval-Shaped Cabin with a surrounding view panel to minimize claustrophobia
- 3D-Adjustable Device Stand (optional motorized version)
- Continuous BTPS Sampling and Calculation via built-in ambient pressure, temperature, and humidity sensors
- Efficient Ambient Pressure Movement Compensation
- Maintenance-Free Electromagnetic Door Lock ensuring patient safety
- Long-Lasting, Stable Materials used throughout
- Robust Aluminum Frames: Box and door frames are crafted from powder-coated, heavy-duty aluminum profiles
- Convenient Service Access: Most electronic components are located on the top of the unit, protected by a hood

Key Features

- Accommodates Patients with Reduced Mobility:
- Fully automated mouth and box pressure controls
- Optional Special Chair Mounted on a telescopic arm for patients with limited mobility or those using wheelchairs.
- Fully CE Marked.
- Comes with the latest GLIs and Z-Scores.

Optional Parameters:

- Bronchial Challenge Testing
- Rhinomanometry
- Respiratory Drive (P0.1 / MIP / MEP / ROCC)
- Compliance Measurements

Front Screen

The image is a composite of two parts. The left part shows a medical software interface. At the top, it says 'Patients Information' and 'Patient ID : 112233 Name : NIGEL TURNER'. Below this is a toolbar with icons for 'New', 'Search', 'Remove', 'Import', 'Export', 'Technician', and 'Physician', along with a 'Dr No' button. A table with columns for 'Patient ID', 'First Name', 'Last Name', 'Date of Birth', 'Gender', 'Height', 'Weight', and 'Last test' is visible. On the far left is a vertical sidebar with icons for various medical functions like ECG, blood pressure, and a gear for settings. The right part of the image is a close-up of a white computer keyboard. A large key in the center has the words 'EASY TO USE' printed on it in blue, 3D-style capital letters.

New Patient

Patients Information

Patient ID : 112233 Name : NIGEL TURNER



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MEE Spirometry



General

Custom Fields

| | | |
|---|---------------|-------------------------------|
| * | Patient Code | <input type="text"/> |
| * | First Name | <input type="text"/> |
| * | Last Name | <input type="text"/> |
| | Gender | Male |
| * | Date of Birth | <input type="text"/> D/M/YYYY |
| * | Age | <input type="text"/> |
| * | Height | <input type="text"/> cm |
| * | Weight | <input type="text"/> Kg |

Ethnic Group

BMI

 kg/m²

BSA

 m²

Description

Cancel

Accept

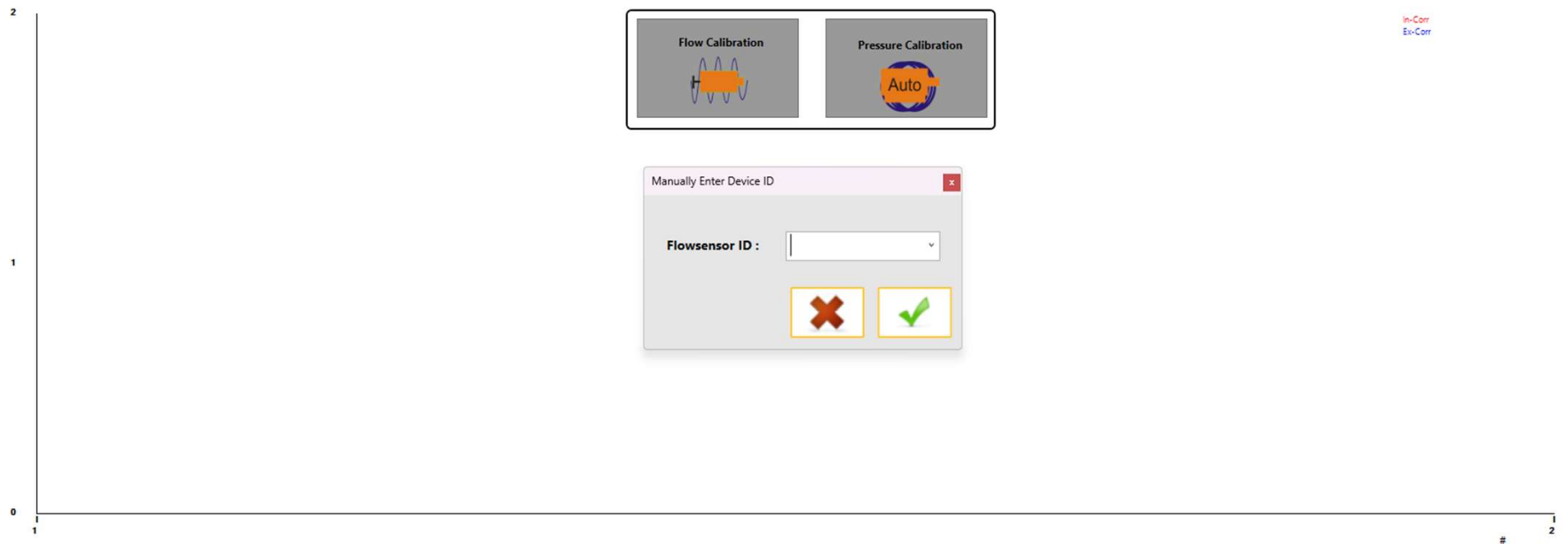
Flow Calibration

Calibration

Patient ID : 112233 Name : NIGEL TURNER



Trends Calibration Curves



Results

60 Days

Date Time Ex-Corr In-Corr Ex Lin. In Lin. Pump Valid Lin. Check Active Flowsensor ID

SVC Measurement

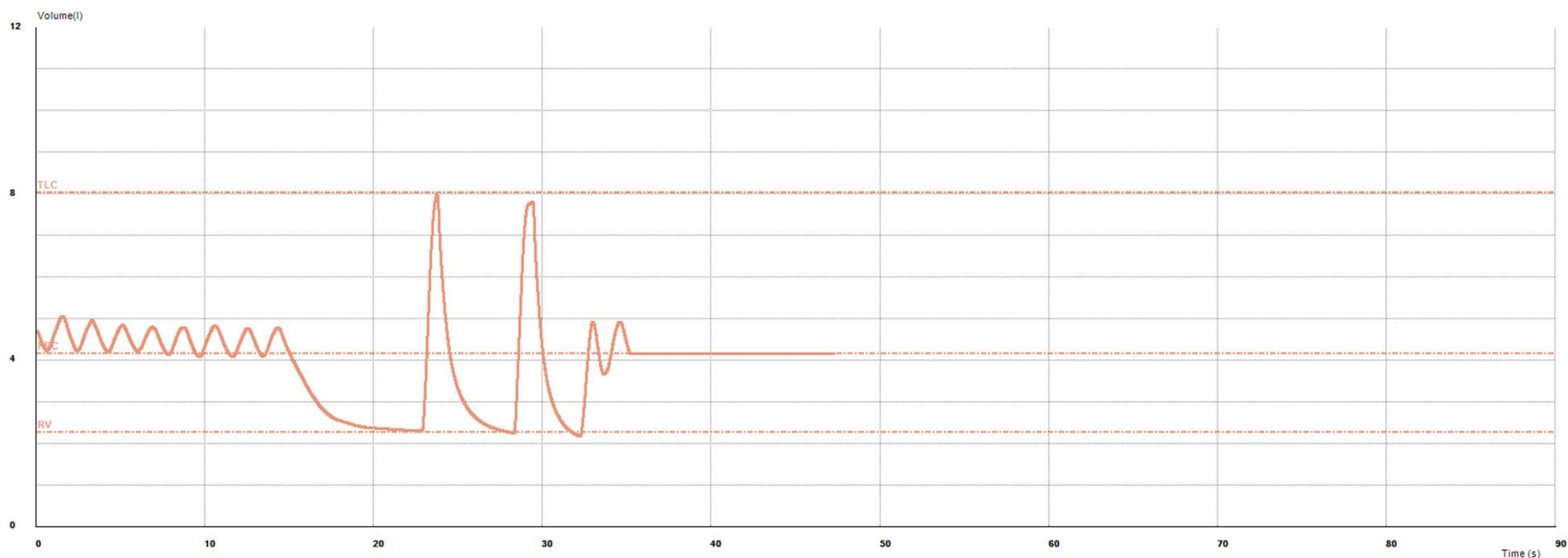
SVC

Patient ID : 112233 Name : NIGEL TURNER



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Today 18/03/2025 16/03/2025 Trends



PRE



Pre B

| SVC Results | | | | Pre (Best) | | Test1 (Best) | |
|-------------|------|------|--|------------|------|--------------|------|
| Parameter | Unit | Ref | | Pre | %Ref | Pre | %Ref |
| VC | l | 4.87 | | 5.75 | 118 | 5.75 | 118 |
| IC | l | 3.70 | | 3.85 | 104 | 3.85 | 104 |
| ERV | l | 1.32 | | 1.90 | 144 | 1.90 | 144 |
| IVC | l | 4.87 | | 5.71 | 117 | 5.71 | 117 |

SVC Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



General

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About

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Trends

Measurement Types

Name

Spirometry

FVC

MVV

RAW

Test Spirometry

Name

IVC

ERV

IRV

TV

Rocc

IC

VCex

VC

Parameters



Name

VC

IC

VC

VC



FVC Measurement

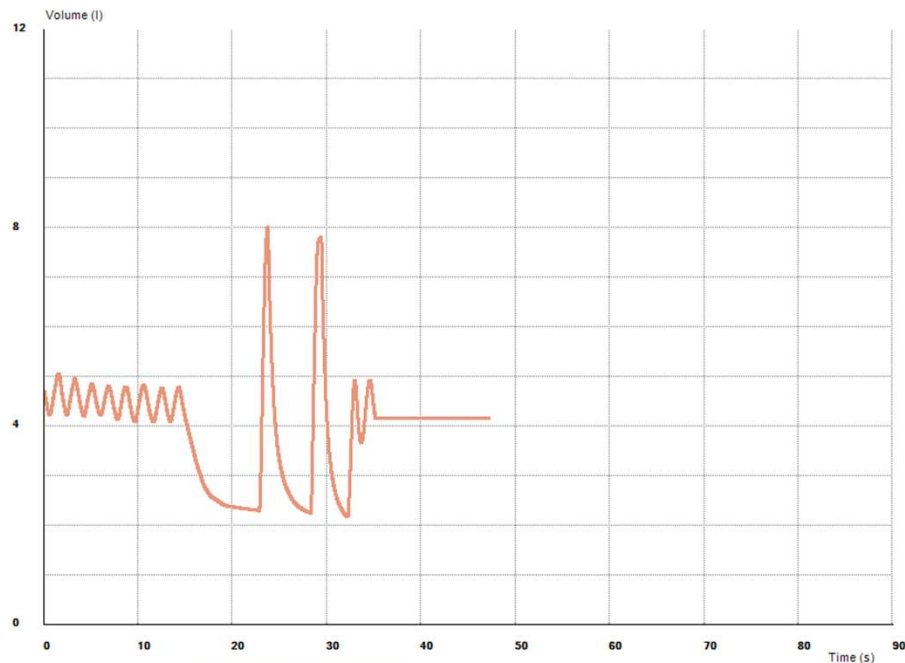
FVC

Patient ID : 112233 Name : NIGEL TURNER

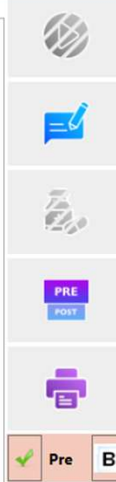


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Today 18/03/2025 16/03/2025 Trends



| Flow/Volume Results | | | | Pre (Best) | | Test1 (Best) | |
|---------------------|------|------|--|------------|------|--------------|------|
| Parameter | Unit | Ref | | Pre | %Ref | Pre | %Ref |
| FEV1 | l | 3.74 | | 4.66 | 125 | 4.66 | 125 |
| FVCex | l | 4.68 | | 5.63 | 120 | 5.63 | 120 |
| FEV1/FVC | % | 78 | | 83 | | 83 | |
| PEF | l/s | 8.97 | | 11.12 | 124 | 11.12 | 124 |
| MEF25-75 | l/s | 3.96 | | 4.93 | 125 | 4.93 | 125 |
| tex | s | | | 2.8 | | 2.8 | |



FVC Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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Measurement Types

Name
Spirometry
FVC
MVV
RAW

Parameters



Test FVC

Name
FEV1
MEF25
MEF50
MEF75
PEF
Aex
FIV1
MIF25
MIF50
MIF75
PIF
Ain



Name

FEV1
FVCex
FVC
F
5-75
<



Co Measurement

DLCO

Patient ID : 112233 Name : NIGEL TURNER

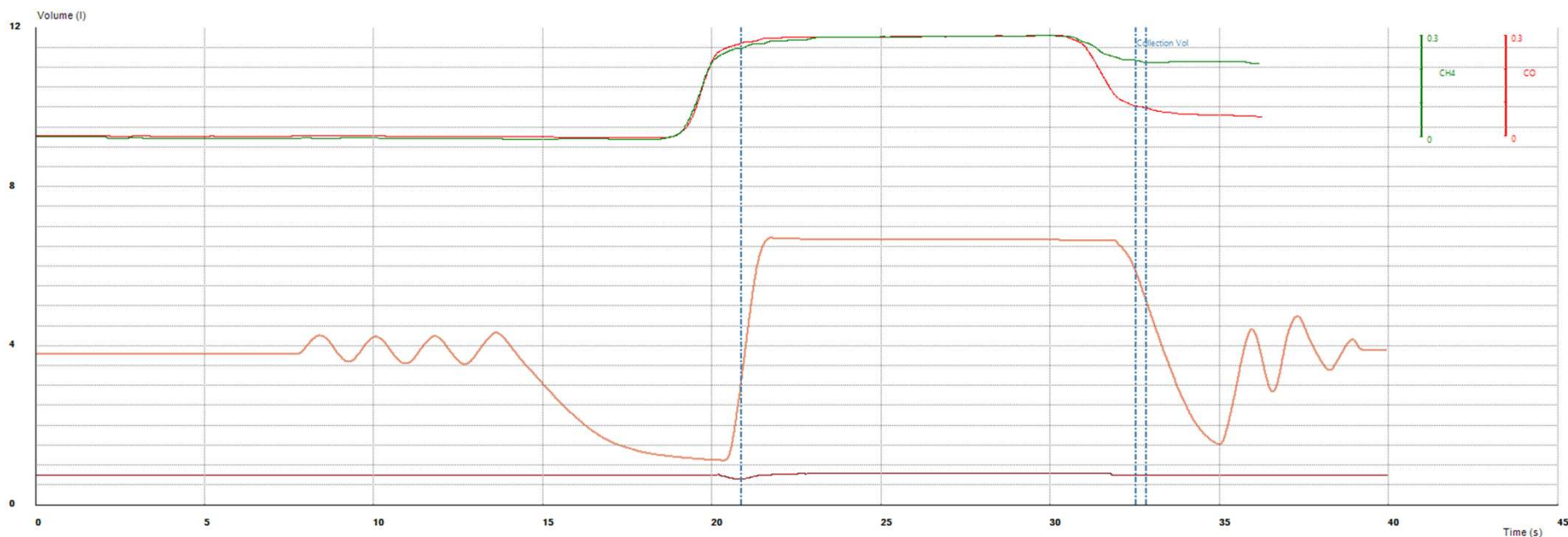
Demo



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Today

Trends



DLCO Results

Test1

| Parameter | Unit | LLN | Ref | ULN | %Ref | ZScore |
|------------|----------------|------|-------|-------|-------|----------|
| TLCO(HB) | mmol/kPa/min | 7.42 | 10.54 | 13.67 | 14.13 | 134 1.88 |
| KCO(HB) | mmol/kPa/min/l | 1.02 | 1.44 | 1.87 | 2.07 | 143 2.40 |
| FRC | l | 1.96 | 3.59 | 5.22 | 4.08 | 114 0.49 |
| RV (Diff) | l | 1.60 | 2.27 | 2.95 | 1.60 | 70 -1.64 |
| RV/TLC | % | 25 | 34 | 43 | 23 | 67 -2.02 |
| TLC (Diff) | l | 6.15 | 7.30 | 8.45 | 7.01 | 96 -0.41 |



Hb (g/dl)
14.6

CO-Hb (%)
0



Ef.1

Co Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



>>



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Name
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FVC
MVV
RAW

Parameters



Test

DLCO

Name
TLCO(HB)
KCO(HB)
VA
t diff.
FRC
RV
RV/TLC
TLC
IVC CH4
Hb
VIN
TLCO



Name

TLCO(HB)
KCO(HB)

C
/
LC
C



Plethysmography Measurement

TGV

Patient ID : 112233 Name : NIGEL TURNER

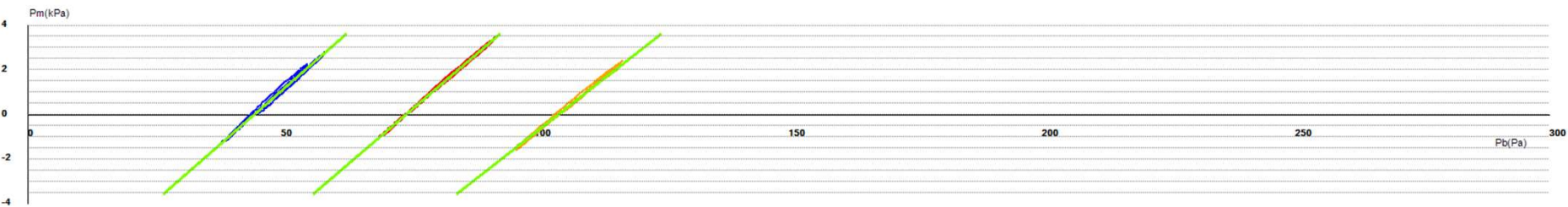
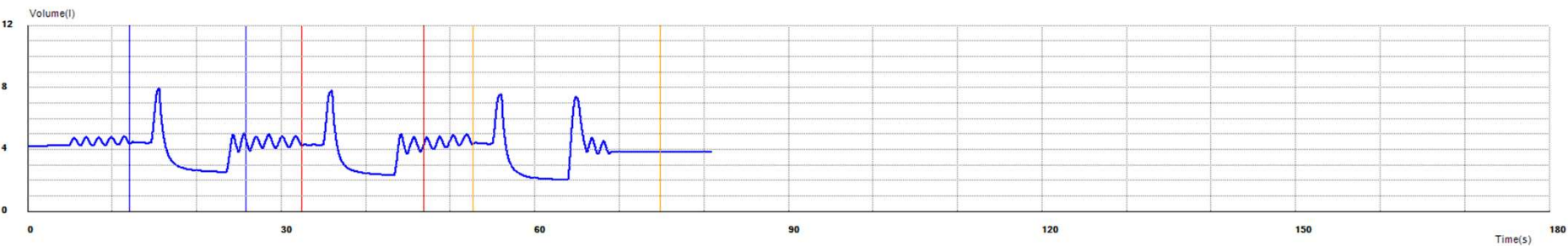
Demo



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Today 10:53 Trends



4.10 ✓ 4.18 ✓ 4.59 ✓

Use spirometry from separate test for TLC calculation



| VTG Results | | | | | Test1 | | |
|-------------|------|------|------|------|-------|------|--------|
| Parameter | Unit | LLN | Ref | ULN | Pre | %Ref | ZScore |
| TGV | l | 1.96 | 3.59 | 5.22 | 4.29 | 120 | 0.71 |
| TLC | l | 6.15 | 7.30 | 8.45 | 7.72 | 106 | 0.60 |
| RV | l | 1.60 | 2.27 | 2.95 | 1.99 | 88 | -0.68 |

Plethysmography Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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MVV
RAW

Parameters



Name

VTGV
TLC

Test VTG

Name
VTGV
RV
TLC
TGV/TLC
RV/TLC
IC
VC
IC/TLC
VC/TLC
IC/TGV
VC/TGV
IC/RV



MVV Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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Measurement Types

Name
Spirometry
FVC
MVV
RAW
Calibration
DLCO
P01
ROCC
RHINO
Compliance
N2WO
BGA
ExtParams
VTG
Challenge Test

Edit

Parameters



Name
MVV
FMVV



P01 Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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Measurement Types

Name
Spirometry
FVC
MVV
RAW
Calibration
DLCO
P01
ROCC
RHINO
Compliance
N2WO
BGA
ExtParams
VTG
Challenge Test

Edit

Parameters



| Name |
|-----------|
| P01 |
| VE |
| P01/VE |
| P01/VT/Ti |
| P01/PImax |
| PImax |
| PEmax |



RHINO Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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FVC
MVV
RAW

Parameters



Test RHINO

Name
R75in
R150in
R300in
L75in
L150in
L300in
SUM75
SUM150
SUM300
IR75-150
IR150-300
IL75-150

Name
R150
L150
.150
150



BGA Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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Name
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FVC
MVV
RAW

Parameters



Name

Test BGA

Name
pH
PCO2
PO2
BE
stHCO3
tHb
SO2
Na+
K+
Ca++
COHb



RAW Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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Measurement Types

Name
Spirometry
FVC
MVV
RAW

Parameters



Name
RAW
Gtot
/tot

Test RAW

Name
RAW
Gtot
sRAWtot
sGAWtot



Spirometry Parameters

Setup/General/Tables settings

Patient ID : 112233 Name : NIGEL TURNER



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Measurement Types

Name

Spirometry

FVC

MVV

RAW

Test Spirometry

Name

IVC

ERV

IRV

TV

Rocc

IC

VCex

VC

Parameters



Name

VC

IC

VC

VC



Custom Reports

Setup/General/Language

Patient ID : 112233 Name : NIGEL TURNER

Spirometry Print Engine

1 Spirometry.sfm DesignerFrame1

Print Design Form

MediTech PL
Medical Diagnostics

MediTech PL
86 / 1 Lutom
64 - 410 Sierakow
Poland

Name
Patient ID
Gender
Ethnicity
Date
Physician
Technician
Ambient
Medication
References

Date Of Birth
Height, Weight
BMI
Bronchodilator
Field 2
Field 3
Field 4

Spirometry Report

| Parameter | Unit | Ref |
|--------------|------|------|
| FEV1 [3] | l | 3.74 |
| FVCex [3] | l | 4.68 |
| FEV1/FVC [3] | % | 78 |
| PEF [3] | l/s | 8.97 |
| MEF25-75 [3] | l/s | 3.96 |
| tex | s | |
| VC [3] | l | 4.87 |
| IC [3] # | l | 3.70 |
| FRV [3] # | l | 1.32 |

M.E.E PFT

List Of Designed Templates

Select Template And Add To Schema:

- 1 Spirometry.sfm
- 2 Bodyplethysmography.sfm
- 3 Bodyplethysmography_DLCC
- 4 DLCO.sfm
- 5 Challenge Test.sfm
- Body Calibration.sfm
- Flow Calibration.sfm
- MVV.sfm
- Respidrive P01_Pmax.sfm
- Rhinomanometry.sfm
- ROCC.sfm

Add

Remove

Selected Schema: SVC

New Schema

List Of Current Schema Items

SVC.sfm

Close

Logo

Header

Demographi

AutoHeader

ATSERS Autc

ATSERS Autc

TestInfo

comment

Challenge Te

Challenge Te

Challenge Te

Challenge Te

Challenge Te

Shared Table

Trend UCChz

Trend UCPar

Custom Fields

Patients Information

Patient ID : 112233 Name : NIGEL TURNER



>>

MEE Spirometry

✕



General

Custom Fields

Bronchodilator

Field 2

Field 3

Field 4

Field 5

Field 6

Field 7

Field 8

Field 9

Field 10

Field 11

Field 12

Field 13

Field 14

Field 15

Field 16

Field 17

Field 18

Field 19

Field 20

Edit

Cancel

Accept

HL7 Software

- Our enhanced HL7 system is designed with ease of use, Speed, and efficiency at its core.
- Seamlessly connecting with your hospital's EMR system, It offers fast, reliable connectivity and an intuitive, user-Friendly interface.
- It optimizes performance and streamlines workflow for Your technicians ensuring they can work more Efficiently than ever before.
- From only €5000 compared to \$15,000 that Other Competitors charge; we offer excellent value for money.



Advanced Filters & Smart Syringe

- Smart Filters with viral & bacterial protection.
- Tongue blocker design for better resistance measurement.
- Nelson Lab tested: >99.999% efficiency.
- Smart syringe for calibration: <0.4% error, and no leakage.
- Aluminium components ensure durability and accuracy.



Why Buy Smart Systems ?

Quality & Precision

- Over 30 years of expertise in lung function test systems.
- High accuracy, robustness, and reliability in every test.
- Designed to simplify daily testing routines.

Proven Performance

- Consistent, accurate results with low breathing resistance (Ideal for severe respiratory patients).
- Meets all ATS / ERS standards and includes GLI reference values & latest Z-Scores.
- Fully CE compliant for safety and regulatory assurance.

Advanced Technology

- State-of-the-art software minimizes errors and ensures reliable measurements.
- Accurate analysis even with low vital capacity.
- Virtually maintenance-free with long-term stable gas analysers.

User-Friendly Software & Features

- Intuitive interface with picture icons for easy navigation.
- Auto-load software for quick and hassle-free setup.
- Multi-language support with various language packs available.
- Easy software upgrades to keep the system up to date.

Why Buy Smart Systems ?

Seamless Hospital Integration

- Low-cost HL7 interface for smooth connection to hospital EMR systems.
- Optional full network connectivity (HL7 / GDT / DICOM) for enhanced data sharing.

Patient-Friendly Design

- Oval-shaped transparent walls reduce claustrophobia.
- Two-door opening for easy access (ideal for patients with mobility issues).
- Fully pneumatic testing process with low-pressure gas lines for enhanced safety.

Cost-Effective & Efficient

- Only one gas bottle required, reducing running costs.
- No expensive consumables (Nafion tubes, absorption tubes, or balloon valves).
- Affordable pricing without compromising quality.

Trust & Excellence

- A device that meets and exceeds expectations in performance and durability.

Smart PFT Medical Equipment combines precision, innovation, and ease of use - making it the ideal choice for respiratory diagnostics.

Contact Information



- Nigel Turner
- MediTech-PL
- 86/1 Lutom, 64-410 Sierakow, Poland
- Tel: +48 783 457 707
- Email: info@meditech-pl.com
- Web: www.meditech-pl.com

