



MES10_{years}

Simplifying Diagnostics

All diagnostic measurements.
All patient records.
One system.

MESI mTABLET



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Completely new concept of a medical device

MESI mTABLET is designed and produced for healthcare professionals with a modern practice in mind.

Our **certified medical tablet** is a unique healthcare solution, integrating **wireless diagnostic modules**, patient records and medical apps in one system.

All measurements and patient data are automatically stored and synchronised with the **built-in electronic medical record – MESI mRECORDS** that is available on the MESI mTABLET and from any web-enabled device, simply and securely.

Performance and functionality can be enhanced with numerous software and diagnostic tools available in the **medical marketplace – MESI mSTORE**.



ALL IN ONE SYSTEM

Wireless and portable hand-held system provides boundless freedom in a modern healthcare facility. Modular system allows you to add modules according to your practice's needs. New ones can be added to the system whenever necessary.



reddot design award winner 2018



* These images are for demonstrational purposes only.

MEDICAL DEVICE FOR A MODERN PRACTICE

Choose diagnostic
modules according
to your practice's
needs

MESI mTABLET ECG

First Completely Digital Electrocardiogram

- From wireless ECG directly to the patient record
- Sharing results for immediate second opinion
- Expanding the medical grade tablet with additional measurements and apps



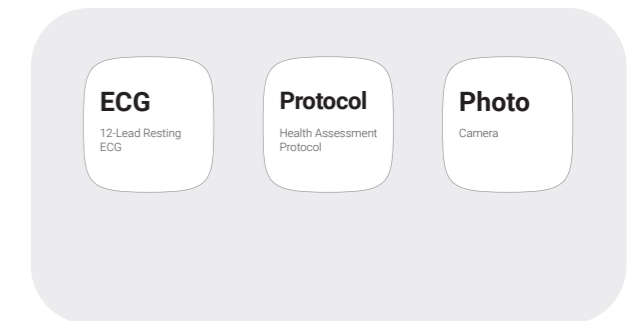
Why MESI mTABLET ECG



- 12-lead wireless ECG
- Glasgow Interpretation Algorithm included
- ECG signal filters (high-pass, low-pass, baseline, mains, myogram)
- 8 advanced view options
- Recording speed and sensitivity settings
- Simple zoom-in, comment adding and advanced analysis
- Printout directly from the tablet

Application extensions

The **MESI mTABLET ECG** is not only an advanced electrocardiogram. By adding new smart applications, you can extend the use and make it your real lifetime associate. This makes it a truly new concept of a medical device.



MESI mTABLET ABI

The Smartest Wireless Ankle-Brachial Index

- PADsense™ algorithm for detection of severe Peripheral Arterial Disease
- 3CUFF™ technology allowing simultaneous measurement
- Quick and reliable ABI measurement with pulse waveform interpretation

SHARE FOR A SECOND OPINION



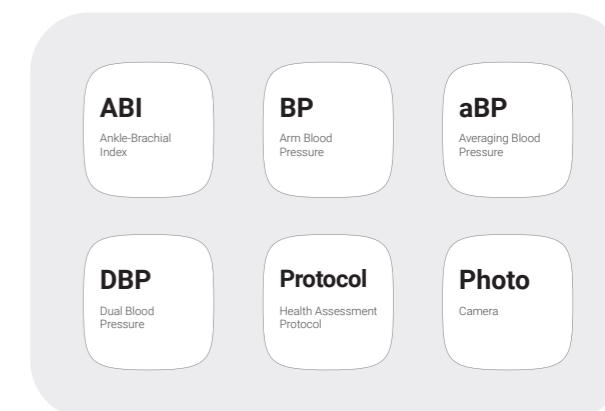
Why MESI mTABLET ABI

- **SmartArm™ detection** – to determine the higher blood pressure of the two
- Automated, **3-cuff simultaneous measurement**
- Multiple cuff sizes and ability to mix-and-match different size cuffs during one measurement
- Pulse waveforms and oscillation graphs
- Advanced review and alerts, thanks to **PADsense™ algorithm**



Application extensions

The **MESI mTABLET ABI** is not only an advanced Ankle-Brachial Index measuring device. By extending the use through smart applications, such as BP app or Photo app, you can measure blood pressure or track the healing of dermatological conditions in a matter of clicks, using the same device.



MESI mTABLET TBI

The Simplest Wireless Toe-Brachial Index

- Quick and reliable TBI measurement with pulse waveform interpretation
- Simple 1-step automated TBI measurement performed in 1 minute
- AdaptiveLED™ PPG probe detects skin thickness for increased accuracy

SHARE FOR A SECOND OPINION

DIRECT STORAGE INTO EHR

SMARTARM™ DETECTION ALGORITHM

COLOUR CODED CUFF SYSTEM

INTEGRATED SKIN TEMPERATURE SENSOR

ADAPTIVELED™ PPG

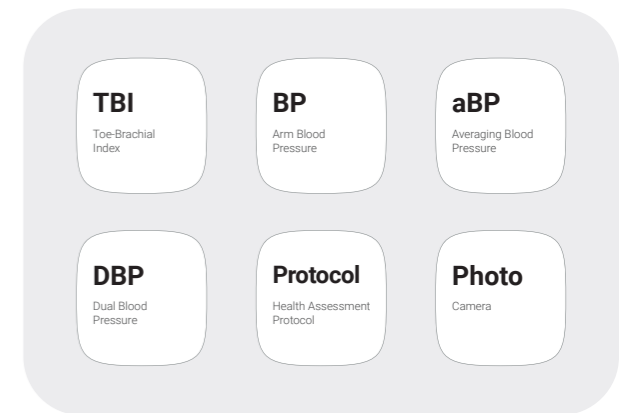


Why MESI mTABLET TBI

- Safe, simultaneous measurements in both arms and toes, with **adaptive, infrared LED PPG light**, detecting toe skin temperature and thickness
- **PADsense™ algorithm** for detection of severe Peripheral Arterial Disease
- Comprehensive and reliable TBI report with **pulse waveforms** and oscillation graphs for the arms and **PPG pulse waveforms** for the toes
- Availability of single-use (disposable) toe cuffs

Application extensions

The MESI mTABLET TBI is not only an advanced Toe-Brachial Index measuring device. By adding smart applications, such as DBP app for determining the interarm difference in blood pressures, you can track more parameters using your existing device and expand the use anytime you require new measurements.



MESI mTABLET BP

Revolutionised Office Blood Pressure

- First wireless arm cuff supporting 3 cuff sizes
- One arm cuff, multiple operating modes
- Advanced analysis options with pulse waveforms

DIRECT STORAGE INTO EHR



SMART SIZE DETECTION



WIRELESS & PORTABLE



ADDITIONAL MEASUREMENTS AND APPS



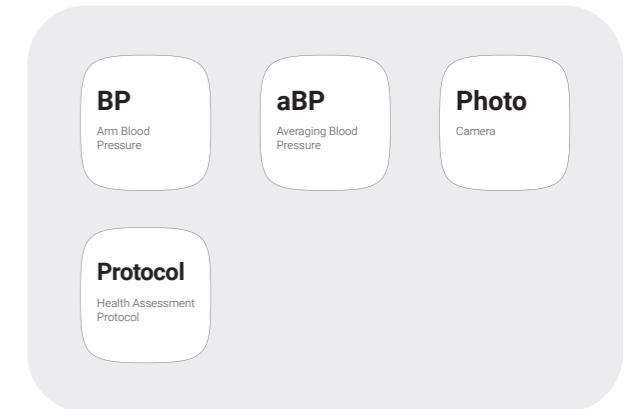
Why MESI mTABLET BP

MESI mTABLET BP brings high precision to the healthcare environment. It is a portable blood pressure monitor for fast and accurate readings. With the help of digital filters, the pulse waveforms are isolated and shown on the screen.



Application extensions

The MESI mTABLET BP is not only an advanced blood pressure monitor. Add new measurements whenever you need them! The aBP (Averaging Blood Pressure) application enables you to take multiple blood pressure readings, which help you detect masked hypertension and reduce overtreatment of white-coat hypertension.



MESI mTABLET SPO2

The Most Flexible Pulse Oximeter

- An intuitive user interface with quickly adjustable operating modes
- Large screen with high visibility of SpO₂ levels and heart rate
- Motion artifact detection and high performance even in low perfusion

MONITOR FUNCTION



TONE AND VISUAL ALARMS



WIRELESS & PORTABLE



DIRECT STORAGE INTO EHR



SHARE FOR A SECOND OPINION



ADDITIONAL MEASUREMENTS AND APPS



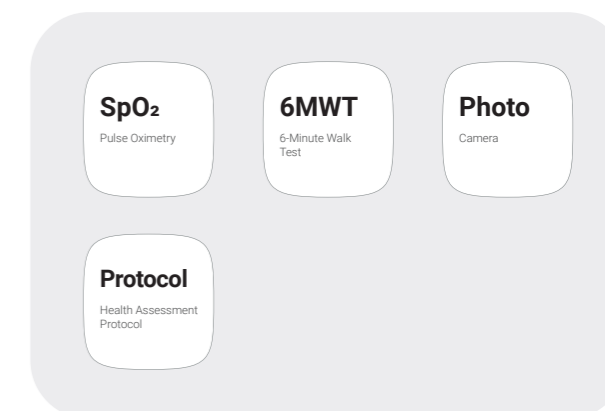
Why MESI mTABLET SPO2

- Real-time tone and visual alarms
- More than 8000 measurements per single charge
- Trend analysis
- Option to wirelessly monitor several patients at the same time



Application extensions

The **MESI mTABLET SPO2** is not only an advanced pulse oximeter. By adding other smart applications, such as the 6MWT (6-Minute Walk Test), you can simply assess functional capacity in patients with a wide variety of pulmonary, cardiovascular, neurological, and neuromuscular condition.



APPLICATIONS TAILORED TO YOUR PRACTICE'S NEEDS

Add measurements
and applications
whenever necessary

Create and Follow Clinical Protocols With the Protocol App

- Standardised patient assessment, implemented into the practice completely hassle-free
- Improved patient outcomes
- Clear audit trail and real-time insight

Protocol

Health Assessment Protocol

MESI 16:32 22/05/2020 92%

Protocol DOCTOR Smith Gregory, GP PATIENT Avery, Alexander

22/05/2020, 13:45

Step 1: Blood pressure

Right arm	Sys	Dia	MAP	Heart rate
	117 mmHg	66 mmHg	78 mmHg	72 bpm

Open result

Step 2: Body temperature

Body temperature (°C)

36.2 °C

Step 3: Patient condition questionnaire

1. What Are Your Medical and Surgical Histories?

Shortness of breath, recurrent back pain, skin disease

2. What Prescription and Non-Prescription Medications Do You Take?

Question has not been answered.

3. What Is Your Smoking, Alcohol, and Illicit Drug Use History?

SIMPLE EDITING AND CUSTOMISATION

WIDE RANGE OF INPUTS

EASY SHARING AND PRINTING



Choose among various fully-customisable formats:

- Measurements (SpO₂, Ankle-Brachial Index...)
- Parameters (temperature, height, weight...)
- Check-boxes
- Drop-down options
- Open ended questions



Use the flexibility the app offers:

- Create protocols as you like directly on the MESI mRECORDS platform.
- Sort the protocols using several parameters.
- Set the sequences of protocol procedures according to your requirements.
- You can update the protocols according to latest guidelines/best practices.



Implement the protocol in your practice:

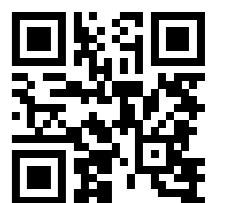
- Publish the protocol you want to implement.
- All members of the working group can access the protocols on the MESI mTABLET.
- Select the appropriate protocol and follow the step-by step guidance.
- You can skip individual steps if they're not applicable.



Review and use the results:

- All data, including the measurements, is automatically stored in the patient record (MESI mRECORDS) and is always available.
- Review all data obtained through the protocol on the MESI mTABLET and MESI mRECORDS.
- After reviewing the data, get a comprehensive report.
- You can print, share, or save the report at any time.

See how it works:



Simplified Cardiopulmonary Assessment With the 6MWT App

- An optimised way of performing an exercise test
- Step-by-step protocol for an easily performed test with accurate and repeatable results
- Standardised test providing an extensive report

6MWT

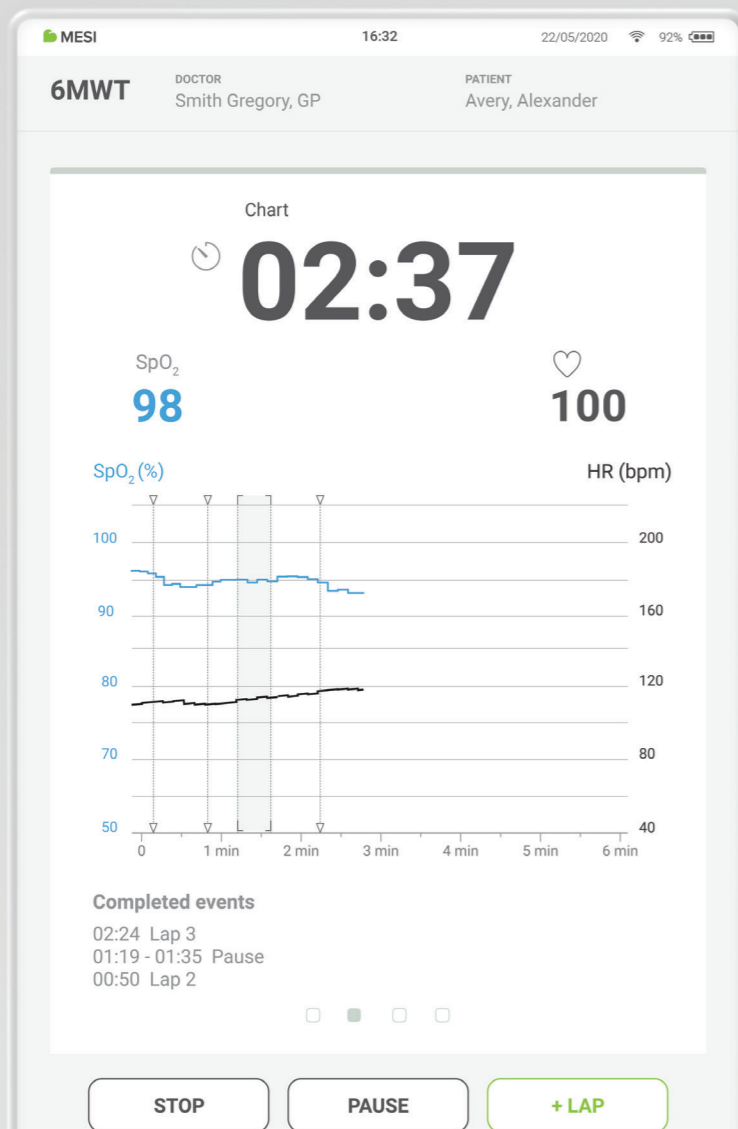
6-Minute Walk Test

OPTION OF ENABLING A POST-TEST RECOVERY PERIOD

10- OR 15-POINT BORG SCALE

PRE- & POST-TEST PATIENT CONDITION RECORD

AUTOMATIC DISTANCE CALCULATION



Enhance your diagnostics

The 6-minute walk test is a submaximal exercise test measuring a distance walked in a span of 6 minutes – the distance provides a measure for an integrated global response of multiple cardiopulmonary and musculoskeletal systems involved in the exercise. With the 6MWT app for MESI mTABLET SPO2, this test becomes fully digital, straightforward and easy to perform.



Gain important insight

The test provides information on the patient's functional capacity, response to therapy and prognosis across a broad range of chronic cardiopulmonary conditions, such as pulmonary arterial hypertension (PAH), heart failure (HF), cardiac rehabilitation/coronary artery disease (CAD) and Peripheral Arterial Disease (PAD), in a comprehensive report format.



Adapt the test to each patient

- Choose between the 10-point Borg scale and 15-point Borg scale evaluation of exertion, dyspnea, chest pain.
- Receive the standardised instructions for patients (standard encouragements) during the measurement.
- Set the pre-test period and the patient recovery phase.
- Switch between different views during the test: events, chart, overview, rest.

See how it works:



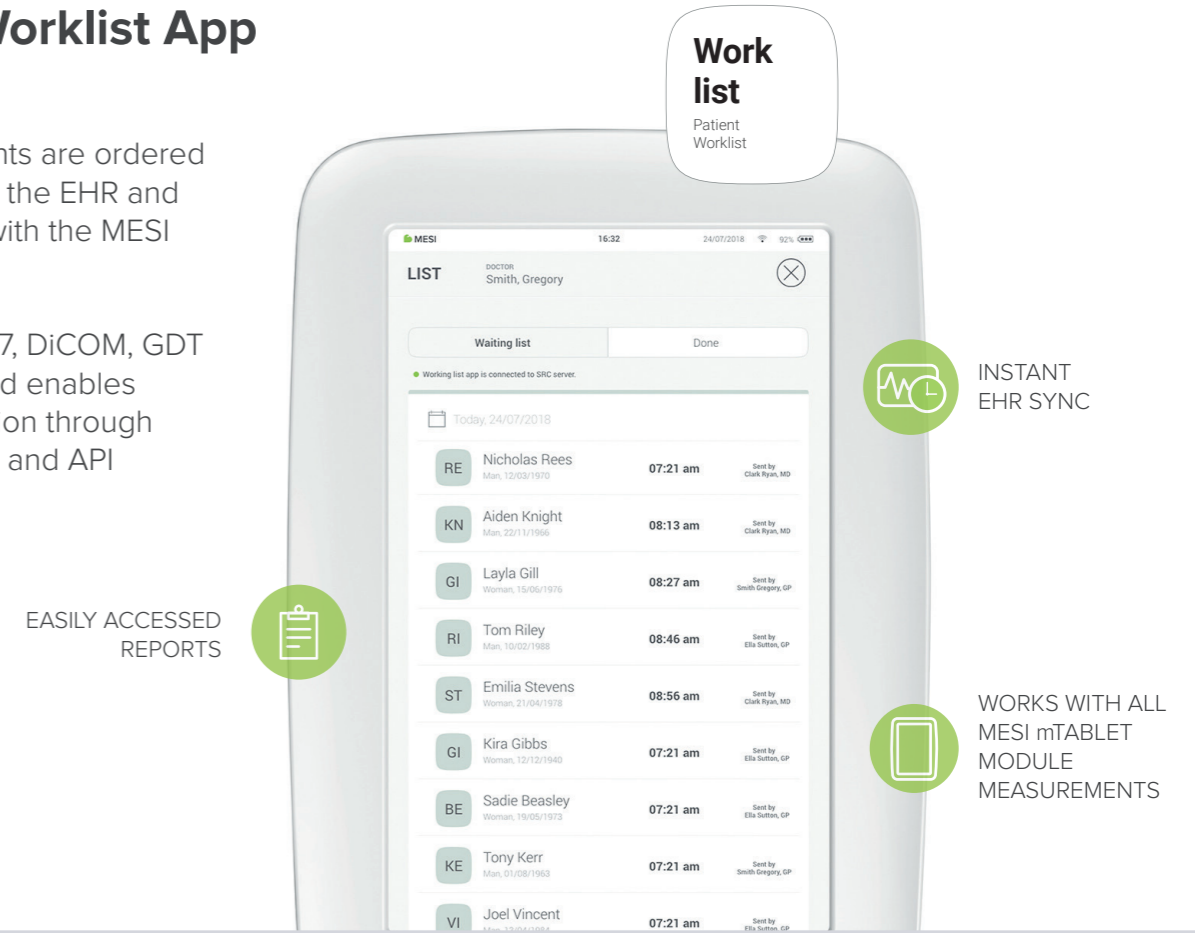
Patient-specific Average Blood Pressure Measurement With the aBP App

- Accurate sequential BP measurement with the Wireless Cuff Diagnostic Module
- Customisable parameters (number of sequential measurements, initial delay and intervals, etc.)
- Reference scale with gathered results of all readings



EHR Communication Made Easy With the Worklist App

- Measurements are ordered directly from the EHR and conducted with the MESI mTABLET
- Supports HL7, DiCOM, GDT protocols and enables communication through .JSON, .XML and API



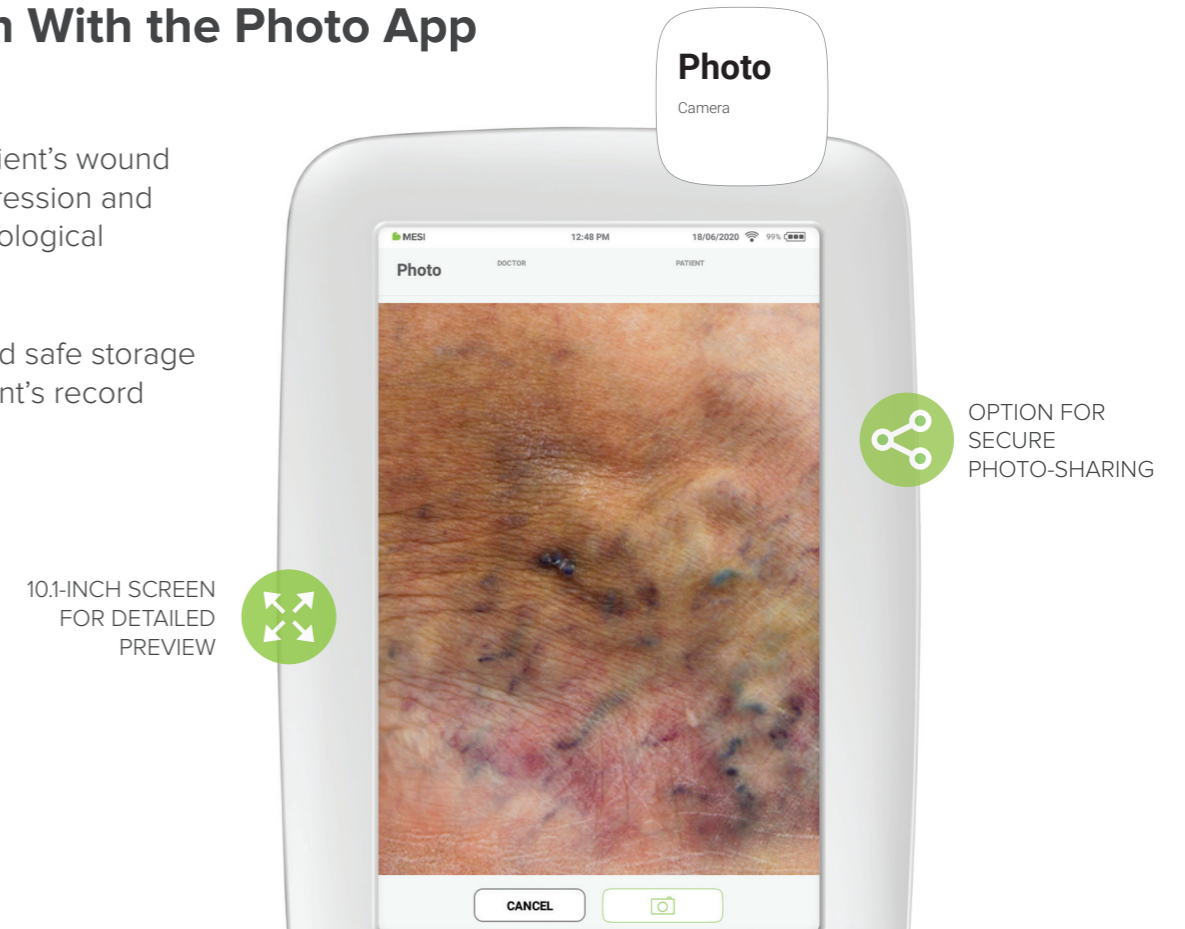
Determine the Interarm Difference in One Step With the DBP App

- Simultaneous measurement in both arms
- All measurements are automatically stored in MESI mRECORDS
- Multiple cuff sizes for increased accuracy



Capture Important Visual Information With the Photo App

- Track the patient's wound healing progression and other dermatological conditions
- Automatic and safe storage into the patient's record



ACCESSORIES



MESI mTABLET ACCESSORIES

PATIENT CABLE - BANANA ADAPTER
ECGMD patient cable - banana connectors (IEC)

ECG



BANANA ADAPTER - ALIGATOR CLIP
ECGMD patient cable - banana adapter - alligator clip (10 pcs)

ECG



BANANA ADAPTER - CLIP WITH EXTENSION
ECGMD Patient cable - banana adapter - clip connector with extension (10 pcs)

ECG



ECGMD MOUNT FOR STRAESSLE DT 100 TPLUS
ECGMD mount with power adapter for Straessle DT100 Tplus

ECG



DISPOSABLE ELECTRODES
ECGMD disposable electrodes - Pediatric package (50 pcs)

ECG



MEDICAL BAG
MESI carry bag with foam insert

ECG, ABI, TBI, BP, SPO2



TUBELESS CUFF 4 SET - LARGE
Set of 4 cuffs for MESI mTABLET ABI - size: large

ABI



TUBELESS CUFF 2 SET - LARGE
Set of 2 cuffs for MESI mTABLET BP - size: large

ABI, TBI, BP



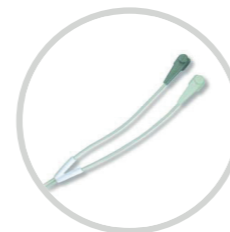
DIGIT CUFFS PAIR - LARGE
Set of 2 digit cuffs for MESI mTABLET TBI/TBP - size: large

TBI, TBP



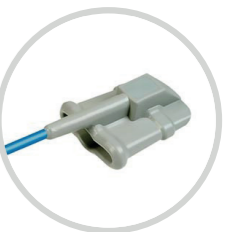
Y SENSOR CABLE
Y sensor cable for MESI mTABLET SPO2

SPO2



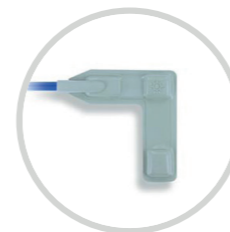
SOFTTIP® SENSOR CABLE
SoftTip® Sensor cable for MESI mTABLET SPO2

SPO2



WRAP SENSOR CABLE
Wrap sensor cable for MESI mTABLET SPO2

SPO2



EARCLIP SENSOR
MESI mTABLET SPO2 EarClip sensor

SPO2



360° SOLUTION

Medical device
addressing your
evolving needs

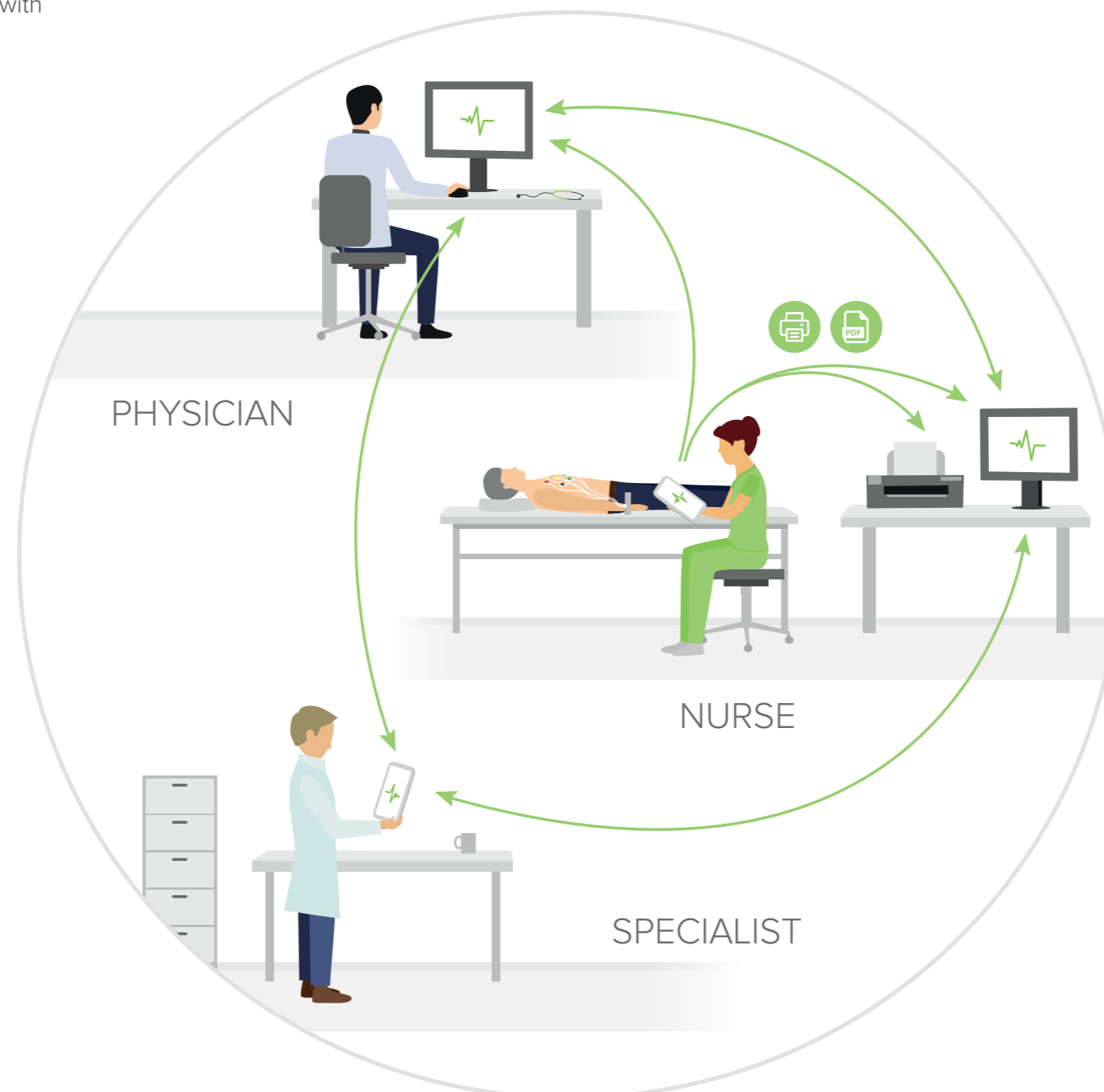
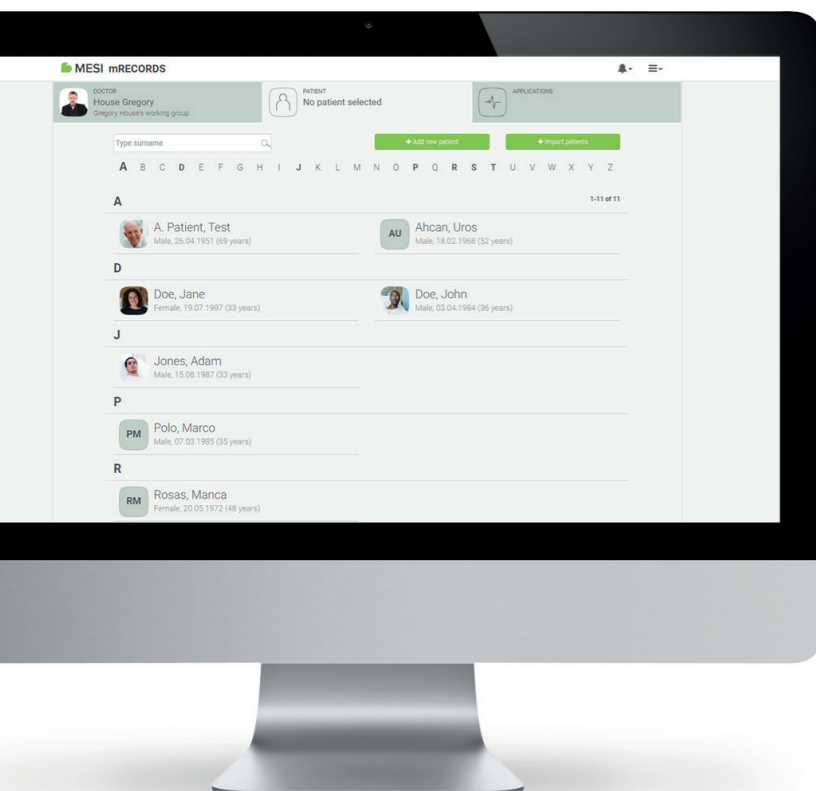
MESI mRECORDS

Storing Reports **Automatically**

MESI mRECORDS ensures that all measurements and patient data are automatically stored and synchronized with the built-in electronic medical record.

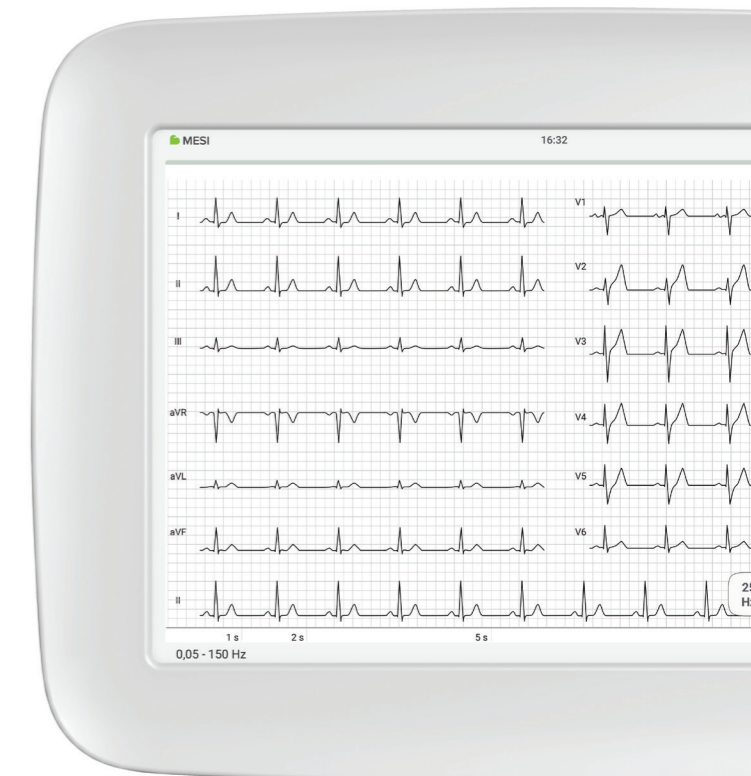
FOR PHYSICIANS

- Secure access to the MESI mTABLET
- Immediate access to the measurement results
- Result analysis and advanced interpretation
- Sharing the result for a second opinion
- Adding comment to the report
- Remote review of the measurement results
- Viewing the results of previous measurements
- Confirming the measurement results



Second opinion made easy

Easy sharing of information between healthcare professionals on PCs, mobile devices and MESI mTABLETs.



FOR NURSES

Automatic PDF storage & print

- Choose to wirelessly print or store the report
- The report is automatically stored in a pre-set folder on your computer
- The report can also be uploaded to your practice's software

MESI mSTORE

Everything In One Place

Similar to the applications on your mobile phone, both MESI mTABLET and MESI mRECORDS can be enhanced with additional software, combining all measurements and medical software in one device.



- Enhance both the diagnostic modules and the patient records
- Find **all available products** from MESI and 3rd party developers **in one place**
- Temporarily activate **demo applications**, to see how they fit into your practice

Knowledge at your fingertips

MESI mSTORE holds all the information on how to get even more out of your MESI products. Watch videos of upcoming measurements, review, technical specifications and request demo applications.

Smart apps for smart work

Find all the software extensions that enhance your existing workflow or help you establish an entirely new way of managing the measurements, your patient reports and follow-ups. Less writing, more diagnostics.

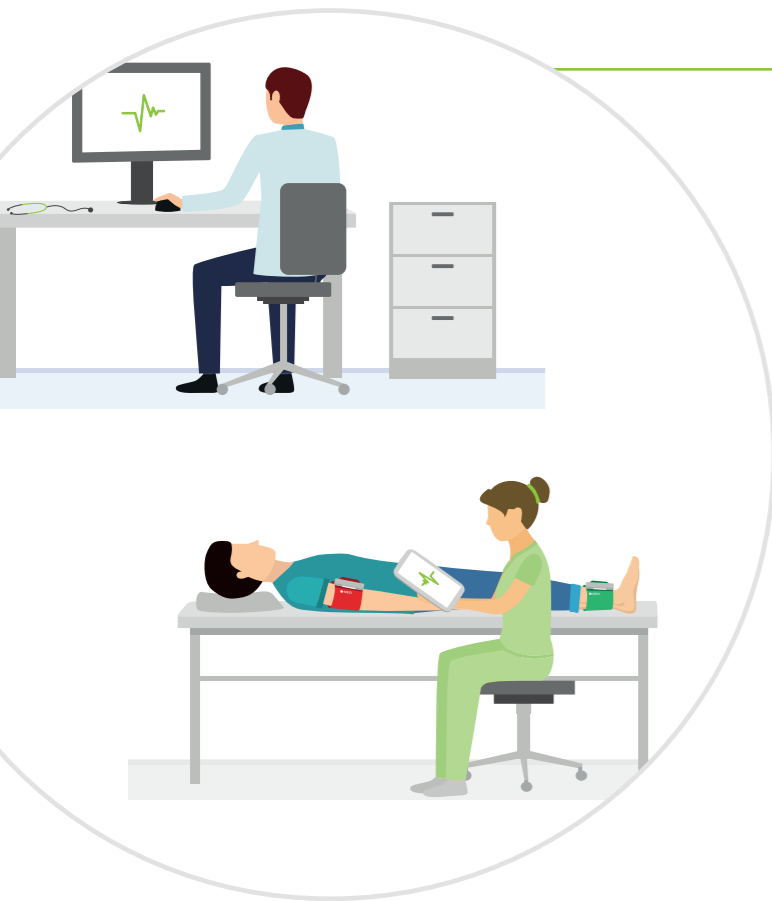
Unlimited possibilities

Cannot find the app you need? MESI provides custom app development for healthcare providers and industry partners. You can get more information at mstore@mesimedical.com.



Wherever Your Work Takes You, the MESI mTABLET System Follows

There is no need to change the way you go about your daily tasks: the MESI mTABLET system adapts to your particular healthcare setting. Whether you are a part of a **smaller practice**, a **multi-level hospital** system, or you provide the patients with **assisted telehealth visits**: MESI mTABLET system supports you throughout your entire day and helps you **work smarter, not harder**.



In your healthcare practice

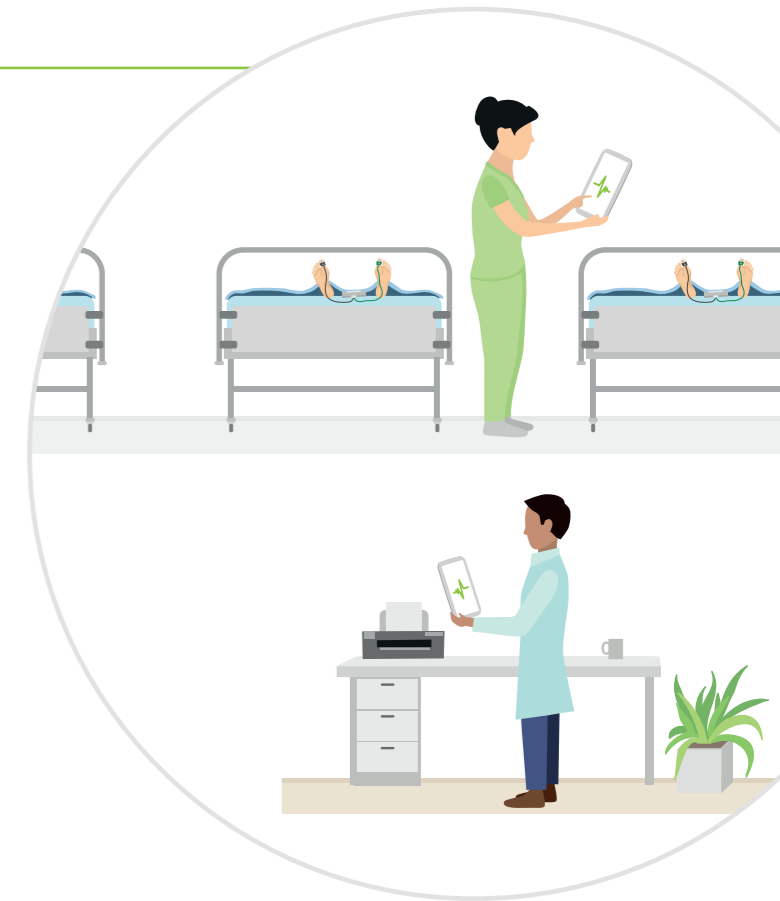
Once you have configured the system that covers all your requirements, it is easily set up with very little further training and with automatic, remote software updates. Any additional modules and application extensions can be added whenever you need them.

You can have a complete overview of all the measurements performed by your team or by yourself in real-time or at any point during your work day, accessible on any web-enabled device. Need a second opinion? The MESI mTABLET's share button ensures the consulting specialist receives the full report without any sensitive information.

In your hospital

No matter how big or small the hospital is, your patients need your full attention. Make the most of the time you have with them by using the MESI mTABLET system's comprehensive reports, immediate access to all previous measurements and minimising the paperwork.

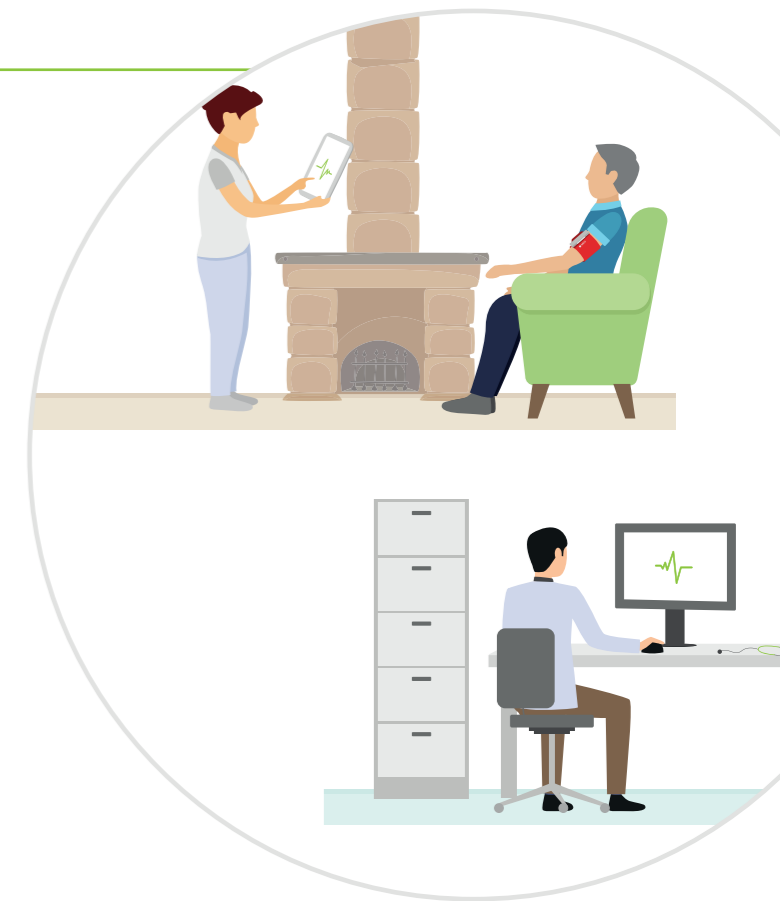
Keep all your team members in the loop through working groups and ensure the same level of care for all your patients by building custom protocols. Fast and objective diagnostics with unified user experience for every single measurement helps strengthen not only your relationships with your patients, but also your coworkers.



During your homecare visits

After charging them overnight, pack the MESI mTABLET and the modules into your bag and take them along - the battery will last for the whole day. Perform the necessary measurements, take photos of skin conditions to monitor the healing progress and add all relevant comments: all the patient data will be immediately synchronised with the built-in MESI mRECORDS platform.

The lead practitioner can view the reports in real-time, add comments to provide immediate feedback, or review them later by accessing the patient file to decide on the treatment or review the patient's trends – all in a matter of clicks.



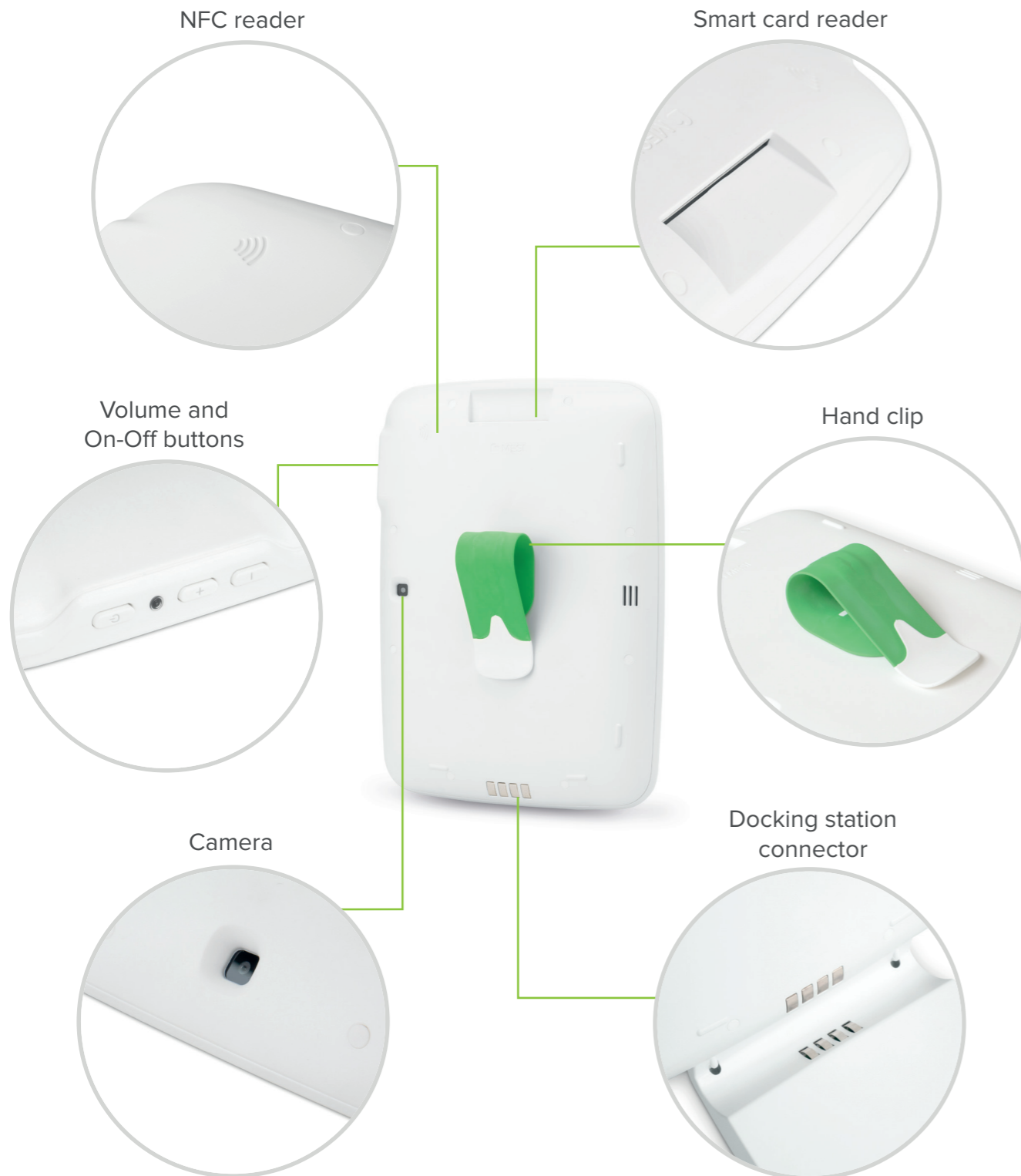
TECHNICAL SPECIFICATIONS



Certified Medical Tablet

Designed for Use in Medical Environments

MESI mTABLET



Wireless diagnostic modules



Charging plate

Universal charger and holder for modules



MESI mTABLET ECG Technical Specifications

Measurement Specifications

Electrode placement detection
Pacemaker detection: $> \pm 2\text{mv}/0.1\text{ms}$
Patient input circuitry: Fully floating and isolated, defibrillation protected (using original MESI or approved patient cable)

Accuracy

CMRR: $>110\text{dB}$
Sampling rate: 32K samples/second/channel (sampling frequency is done internally, output sampling frequency from module to tablet is 1kHz)
Resolution: 2.5 $\mu\text{V}/19\text{bit}$
ECG analysis frequency: 1000 samples/second
Pacemaker detection: $\geq \pm 2 \text{ mV} / \geq \pm 0.1 \text{ ms}$

Processing

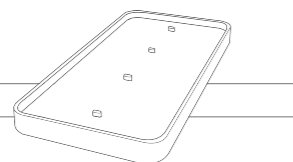
Interpretation: University of Glasgow Analysis Software
Patient data: name, date of birth, race
Measurement data is always first 10 seconds of data at 500Hz rate per channel (5000 samples)
Low-pass filter: 150 Hz, 250 Hz
High-pass (baseline) filter: 0.05 Hz, 0.2 Hz, 0.5 Hz
Myogram (muscle tremor) filter:
25 Hz (40 dB/dec) or 35 Hz (20 dB/dec)
Mains filter: Distortion-free suppression of superimposed 50 or 60 Hz sinusoidal interferences by means of an adaptive digital filter
Lead display: 6:6+1, 6:6, 3:3 main, 3:3 aux, 6 main, 6 aux, 3:4, 12, 3:4+II
Sensitivity: 5mm/mV, 10mm/mV, 20mm/mV
Recording speed: 12.5mm/s, 25mm/s, 50mm/s

Power & Battery

High-power rechargeable Lithium-Polymer battery
Capacity: 1240 mAh
Examinations per battery charge: >2000
Continuous use: $>5,5\text{h}$
Charge time for depleted battery:
Approximately 2 hours (minimum charge time for 1 automatic mode ECG: 10 minutes)
Input: 100-240V AC/50-60Hz/350mA
Output: 5V DC/5.0A

Charging Station

Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times.
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Module Dimensions

Width: 40mm (1.57 inches)
Depth: 48mm (1.89 inches)
Height: 135mm (5.31 inches)
Weight: 220 grams



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration upon request

Protection Classification

Type of protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: CF
RF emissions (CIPSR 11): Group 1, Class B
Ingress protection: IP44

Applied Standards

EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN 60601-2-25 Particular requirements for basic safety and essential performance of electrocardiographs

Operating Conditions

Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
 -15° to 50°C (<1 month)
 -15° to 40°C (<3 month)
 -15° to 25°C (<12 month)
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2 step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET ABI Technical Specifications

Measurements

Ankle-Brachial Pressure Index using improved oscillometric method and plethysmography, with PADsense™ algorithm
Heart rate and systolic, diastolic and mean blood pressure using improved oscillometric method and plethysmography

Measurement Extensions*

Blood Pressure
Averaging Blood Pressure
Dual Blood Pressure

*Available with upgrade

Measurement Range

Pressure: 0 to 299 mmHg
Pulse rate: 30 to 199 bpm

Accuracy

Pressure: Within ± 5 mmHg
Heart rate: Within ± 5 % of readings
ABPI: Within ± 0.1

Power & Battery

High-power rechargeable Lithium-Polymer battery
Capacity: 1240 mAh
Examinations per battery charge: >200
Charge time for depleted battery (for each unit): approximately 1.5 hours
Input: 100-240V AC / 50-60Hz / 350mA
Output: 5V DC / 5.0A

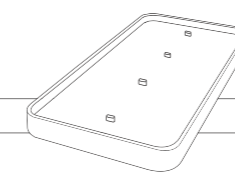
Module Dimensions

Width: 40mm (1.57 inches)
Depth: 40mm (1.57 inches)
Height: 150mm (5.91 inches)
Weight: 286 grams



Charging Station

Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times.
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration upon request

Connectivity

Data connectivity with MTABMD (Bluetooth 2.1 + EDR)
Receiving section
Frequency range: 2401.3 MHz – 2480.7 MHz
Bandwidth: 0.930MHz
Automatic remote updates of software and hardware

Protection Classification

Protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: Type BF Applied part
RF emissions (CIPSR 11): Group 1, Class B
Ingress protection: IP42

Applied Standards

EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN 80601-2-30 Particular requirements for the basic safety and essential performance of automated, non-invasive sphygmomanometers

Operating Conditions

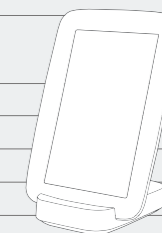
Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
 -15° to 50°C (<1 month)
 -15° to 40°C (<3 month)
 -15° to 25°C (<12 month)
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2 step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET TBI Technical Specifications

Measurements

Toe-Brachial Pressure index combining plethysmography-oscillometric and photoplethysmographic methods.
Systolic toe blood pressure, systolic and diastolic brachial blood pressure, heart rate using plethysmography-oscillometric and photoplethysmographic methods.

Measurement Extensions*

Blood Pressure
Averaging Blood Pressure
Dual Blood Pressure
Toe Blood Pressure

*Available with upgrade

Measurement Range

Pressure: 0 to 299 mmHg (arms)
Pressure: 20 to 250 mmHg (toes)
Pulse rate: 30 to 199 bpm

Accuracy

Pressure: Within ± 5 mmHg
Heart rate: Within $\pm 5\%$ of readings
TBI: Within ± 0.1

Power & Battery

High-power rechargeable Lithium-Polymer battery
Capacity: 1240 mAh
Examinations per battery charge: >200
Charge time for depleted battery (for each unit): approximately 1.5 hours
Input: 100-240V AC / 50-60Hz / 350mA
Output: 5V DC/5.0A

Module Dimensions (TBPMD)

Width: 40mm (1.57 inches)
Depth: 40mm (1.57 inches)
Height: 150mm (5.91 inches)
Weight: 244 grams



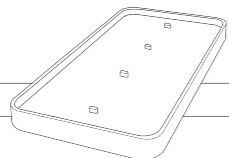
Module Dimensions (CUFFMD)

Width: 40mm (1.57 inches)
Depth: 40mm (1.57 inches)
Height: 150mm (5.91 inches)
Weight: 286 grams



Charging Station

Dual purpose of the charging station: safe storage of the modules between measurements and fully charged device at all times
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration upon request

Connectivity

Data connectivity with MTABMD (Bluetooth 2.1 + EDR)
Receiving section
Frequency range: 2401.3 MHz – 2480.7 MHz
Bandwidth: 0.930MHz
Automatic remote updates of software and hardware

Applied Standards:

EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN 80601-2-30 Particular requirements for the basic safety and essential performance of automated, non-invasive sphygmomanometers

Protection Classification

Protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: Type BF Applied part
RF emissions (CIPSR 11): Group 1. Class B
Ingress protection: IP42

Operating Conditions

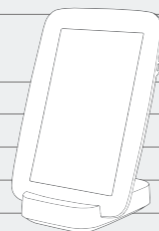
Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
-15° to 50°C (<1 month)
-15° to 40°C (<3 month)
-15° to 25°C (<12 month)
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2 step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET BP Technical Specifications

Measurements

Heart rate and systolic, diastolic and mean blood pressure using improved oscillometric method and plethysmography

Measurement Extensions*

Averaging Blood Pressure
Dual Blood Pressure

*Available with upgrade

Measurement Range

Pressure: 0 to 299 mmHg
Pulse rate: 30 to 199 bpm

Accuracy

Pressure: Within ± 5 mmHg
Heart rate: Within $\pm 5\%$ of readings

Power & Battery

High-power rechargeable Lithium-Polymer battery
Capacity: 1240 mAh
Examinations per battery charge: >200
Charge time for depleted battery (for each unit): approximately 1.5 hours
Input: 100-240V AC / 50-60Hz / 350mA
Output: 5V DC / 5.0A

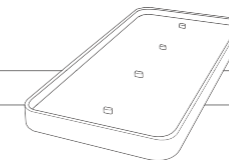
Module Dimensions

Width: 40mm (1.57 inches)
Depth: 40mm (1.57 inches)
Height: 150mm (5.91 inches)
Weight: 286 grams



Charging Station

Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times
Width: 400 mm
Depth: 200 mm
Height: 38 mm
Weight: 675 grams
Positioning types:
Desk, wall mount or trolley



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS
MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer
Worklist integration for: DICOM, HL7, XML, GDT, JSON
Full custom integration upon request

Connectivity

Data connectivity with MTABMD (Bluetooth 2.1 + EDR)
Receiving section
Frequency range: 2401.3 MHz – 2480.7 MHz
Bandwidth: 0.930MHz
Automatic remote updates of software and hardware

Protection Classification

Protection against electric shock: Class II
Medical device classification: Class IIa
Applied parts: Type BF Applied part
RF emissions (CIPSR 11): Group 1. Class B
Ingress protection: IP42*

Applied Standards

EN 60601-1 General requirements for Safety
EN 60601-1-2 Electromagnetic compatibility - Requirements and tests
EN 80601-2-30 Particular requirements for the basic safety and essential performance of automated, non-invasive sphygmomanometers

Operating Conditions

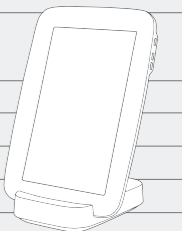
Temperature, operating: 10° to 40°C
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:
-15° to 50°C (<1 month)
-15° to 40°C (<3 month)
-15° to 25°C (<12 month)
Relative humidity: 25 to 85% (no condensation)
Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS
Processor: CPU Quad ARM Cortex A53 @ up to 1.2GHz per core
Barcode reader: 1D/2D barcode imager
Screen: 1280 x 800 px IPS
Storage: 8 GB
RAM: 1 GB
Connectivity: Wi-Fi 802.11b/g/n and 2.4 GHz single band Bluetooth 4.1
Camera: 5 MP
Environment: IP2x, 90 cm drop resistant
Audio: Mono speaker
Security: 2 step authentication, user password or PIN
Battery operation: more than 8 hours of continuous use



MESI mTABLET SPO2 Technical Specifications

Measurements:

Pulse oximetry and heart rate

Measurement Extensions*

6-minute walk test

*Available with upgrade

Measurement Range

SpO2 measurement: 45 – 100 %

Pulse frequency measurement: 20 – 300 bpm

Accuracy

Plethysmogram: 0 – 28 LSB

Raw plethysmogram: 0 – 224 LSB

Signal quality: 0 – 100 %

Power & Battery

High-power rechargeable Lithium-Polymer battery

Capacity: 1240 mAh

Examinations per battery charge: >8000

Continuous use: >56h

Charge time for depleted battery:

Approximately 2 hours

Input: 100-240V AC/50-60Hz/350mA

Output: 5V DC/5.0A

Charging Station

Dual purpose of the charging station: safe storage of the module between measurements and fully charged device at all times.

Width: 400 mm

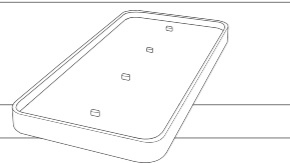
Depth: 200 mm

Height: 38 mm

Weight: 675 grams

Positioning types:

Desk, wall mount or trolley



Module Dimensions

Width: 40mm (1.57 inches)

Depth: 48mm (1.89 inches)

Height: 135mm (5.31 inches)

Weight: 210 grams



Smart Data Management

Secure report access with the out-of-the-box platform - MESI mRECORDS

MESI mPRINT service for secure printout through the internal network, direct .pdf storage on a local computer

Worklist integration for: DICOM, HL7, XML, GDT, JSON

Full custom integration upon request

Protection Classification

Type of protection against electric shock: Class II

Medical device classification: Class IIa

Applied parts: CF

RF emissions (CIPSR 11): Group 1, Class B"

Ingress protection: IP44

Applied Standards

EN 60601-1 General requirements for Safety

EN 60601-1-2 Electromagnetic compatibility - Requirements and tests

EN 80601-2-61 Particular requirements for basic safety and essential performance of pulse oximeter equipment

Operating Conditions

Temperature, operating: 10° to 40°C

Relative humidity: 25 to 85% (no condensation)

Pressure during operation: 700 to 1060 hPa

Transport & Storage Conditions

Temperature:

-15° to 50°C (<1 month)

-15° to 40°C (<3 month)

-15° to 25°C (<12 month)

Relative humidity: 25 to 85% (no condensation)

Pressure during operation: 700 to 1060 hPa

MESI mTABLET Technical Specifications

Operating System: MESI OS

Processor: CPU Quad ARM Cortex A53

@ up to 1.2GHz per core

Barcode reader: 1D/2D barcode imager

Screen: 1280 x 800 px IPS

Storage: 8 GB

RAM: 1 GB

Connectivity: Wi-Fi 802.11b/g/n

and 2.4 GHz single band Bluetooth 4.1

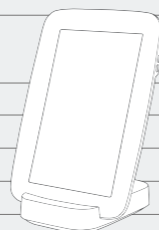
Camera: 5 MP

Environment: IP2x, 90 cm drop resistant

Audio: Mono speaker

Security: 2 step authentication, user password or PIN

Battery operation: more than 8 hours of continuous use



“

We certainly will recommend MESI mTABLET. In our opinion, many medical and physiotherapeutic clinics, as well as hospitals would benefit from this kind of a device, because of its complex performance. It can be adjusted to our individual needs depending on the type of patient we are dealing with.

Anna Sobolewska
Owner of Lymphoedema
Treatment Clinic

“

I discovered MESI mTABLET on the internet and fell in love instantly. It is perfect for telemedicine – lightweight, easy to use, without tubes, enabling cloud-based data storage and easy shareable reports. I enjoy using modern technology that saves me a lot of time and money!

Dr. Robert Farmasi
Family doctor

MESI CONFIGURATOR

Build the **Perfect MESI mTABLET System** for Your Practice

1st STEP

CHOOSE YOUR STARTING SYSTEM

Select a starting system that fits your practice's needs.



ECG



ABI



TBI

2nd STEP

ADD EXTENSIONS AND MODULES

You can add any combination of extensions and modules to your system, depending on what measurements you wish to perform.



ECG



ABI



TBI



BP

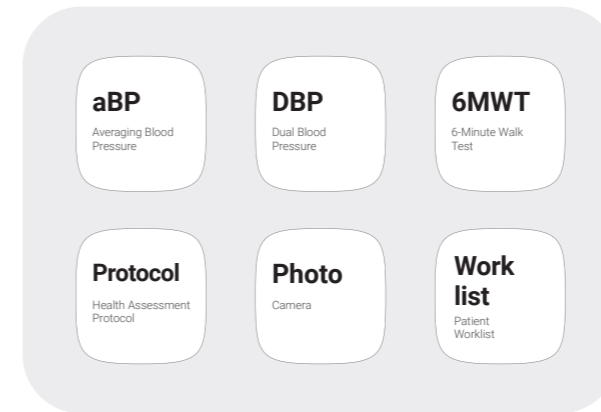


SPO2

3rd STEP

ADD SMART APPLICATIONS

Add smart applications that expand the use of your existing device.



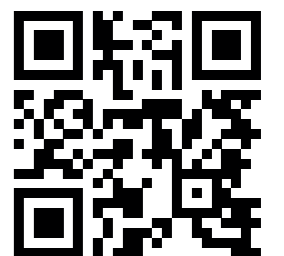
4th STEP

ADD ACCESSORIES

Select any accessories that you want, to enhance the usability of the system you built.



Build your own system using our configurator app accessible through this **QR code**



DEMONSTRATION VIDEOS

Observe the **Devices in Action** by Watching These Videos

Use the QR code next to each device listed below, to gain access to a video showing how to perform a measurement with that extension.



MESI mTABLET ECG



MESI mTABLET ABI



MESI mTABLET TBI



MESI mTABLET BP



MESI mTABLET SPO2



A Solution of Unlimited Possibilities



Addressing the Big Data revolution

The way the MESI mTABLET handles information is unique. Objective results from diagnostic measurements, triage, specialist opinions, consultations and any other data are all stored in one place. This combination enables progressive analytics now, and anytime in the future.



Always up-to-date

MESI mTABLET is constantly upgraded with additional diagnostic tools and medical apps. This boosts its functionality and gives users access to the information and tools they need.



Improving information flow between healthcare professionals

Communication between the primary care physician, nurse, and specialist is crucial for the patient's outcome.

With the MESI mTABLET, all the stakeholders access healthcare information in the same format. This prevents misunderstandings in communication, inconsistencies in reporting and therefore reduces time spent on diagnosis and treatment.



MESI

Simplifying Diagnostics

MESI, development of
medical devices, Ltd
Leskoškova cesta 11a
1000 Ljubljana, Slovenia, EU

E: info@mesimedical.com
T: +386 1 620 34 87
www.mesimedical.com

You can also find us on:

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CE 1304

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November 2020

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