PULSE WAVE ANALYSIS

Medidyne
Making a Difference

Technology Expert in Hypertension Management

MOBILGRAPH®
Technology Expert in Hypertension Management

Quality medical devices made in Germany

I.E.M. is a German manufacturer of medical devices in the field of cardiovascular disease management. As technology experts in hypertension management, we provide our customers with solutions from screening and diagnostics to follow-up management.

In addition to information about our products and services, we also offer concepts and information about hypertension in multiple languages. Our global network provides us information and ideas that have a direct influence on our development, product design and marketing concepts.

Main Benefits of PWA for Nephrology:

- Aortic Pulse Wave Velocity as biomarker for life expectancy, especially for patients on dialysis treatment.
- Help to focus on patients who are in need of urgent treatment.
- Improved resource management for daily dialysis routine.
- Individualization of therapy, within dialysis and out-patient treatment, especially in case of chronic heart failure and hypertension.
- Individual check of medication efficacy and optimal use of substance classes.
- Improvement quality of life, treat to target, avoiding overtreatment.

The I.E.M. headquarters is located in Stolberg, Germany.

Mobil-O-Graph® PWA – High comfort cuff based technology

- Clinically validated against invasive measurement technologies.
- Excellent reproducible measurement method.
- More than 200+ published papers.
- Operator independent - single, sequential and ambulatory measurements.
- Easy and quick performance can be processed by your medical staff.
- High patient acceptance due to convenient measurement technologies.
- Patient Database, software export functions and HIS interface.

24h ABPM & Pulse Wave Analysis

One device for measuring central blood pressure, arterial stiffness and hemodynamics

Parameters

Blood Pressure (BP)
- Peripheral BP and Heart Rate
- Central BP

Arterial Stiffness
- Augmentation Index
- Augmentation Index@75
- Wave Separation Analysis
- Aortic Pulse Wave Velocity

Hemodynamics
- Stroke Volume/ Cardiac Output
- Cardiac Index
- Total Peripheral Resistance

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Publications
Recent publications in the field of nephrology done with the Mobil-O-Graph®

• Ambulatory pulse wave velocity is a stronger predictor of cardiovascular events and all-cause mortality than office and ambulatory blood pressure in hemodialysis patients.
  Sarafidis PA et al.; American Heart Association Hypertension. May 2017

• Assessment of systolic aortic pressure and its association to all cause mortality critically depends on waveform calibration.

• Evaluation of a novel brachial cuff-based oscillometric method for estimating central systolic pressure in hemodialysis patients.
  Sarafidis PA, Georgianos PI, American Journal of Nephrology. October 2014

• Aortic to brachial pulse pressure amplification as functional marker and predictor of renal function loss in chronic kidney disease.

• Aortic pulse wave velocity predicts mortality in chronic kidney disease stages 2-4.
  Baumann M, Wassertheurer et al., Journal of Hypertension. April 2014

• A prospective observational study comparing a non-operator dependent automatic PWV analyzer to pulse pressure, in assessing arterial stiffness in hemodialysis.
  Salvade et al, BMC Nephrology. April 2015