





# **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.





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)**

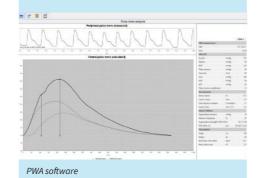
- Peripheral BP and Heart Rate
- Central BP

## **Arterial Stiffness**

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

## Hemodynamics

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





## 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.
- Less complication during dialysis, Pulse Wave Analysis as "Bio Feedback", monitoring of cardiovascular system when reducing the patient's volume.
- Improvement quality of life, treat to target, avoiding overtreatment.



## **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.

Wassertheurer S, Baumann, M, Journal of Hypertension. September 2015

 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.

Wassertheurer et al. The Journal of Clinical Hypertension. April 2014

 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.

I Salvade et al. BMC Nephrology. April 2015

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