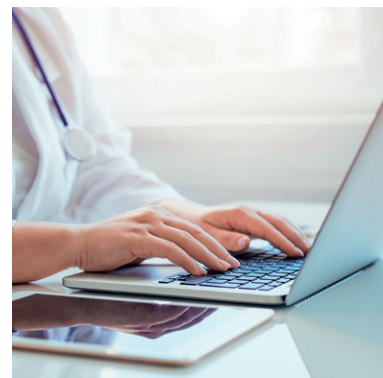


Highest measurement accuracy in ABPM

# ***custo screen 300 | 310 | pediatric***





## **custo screen 300**

### *The fast and safe way to get a valid report!*

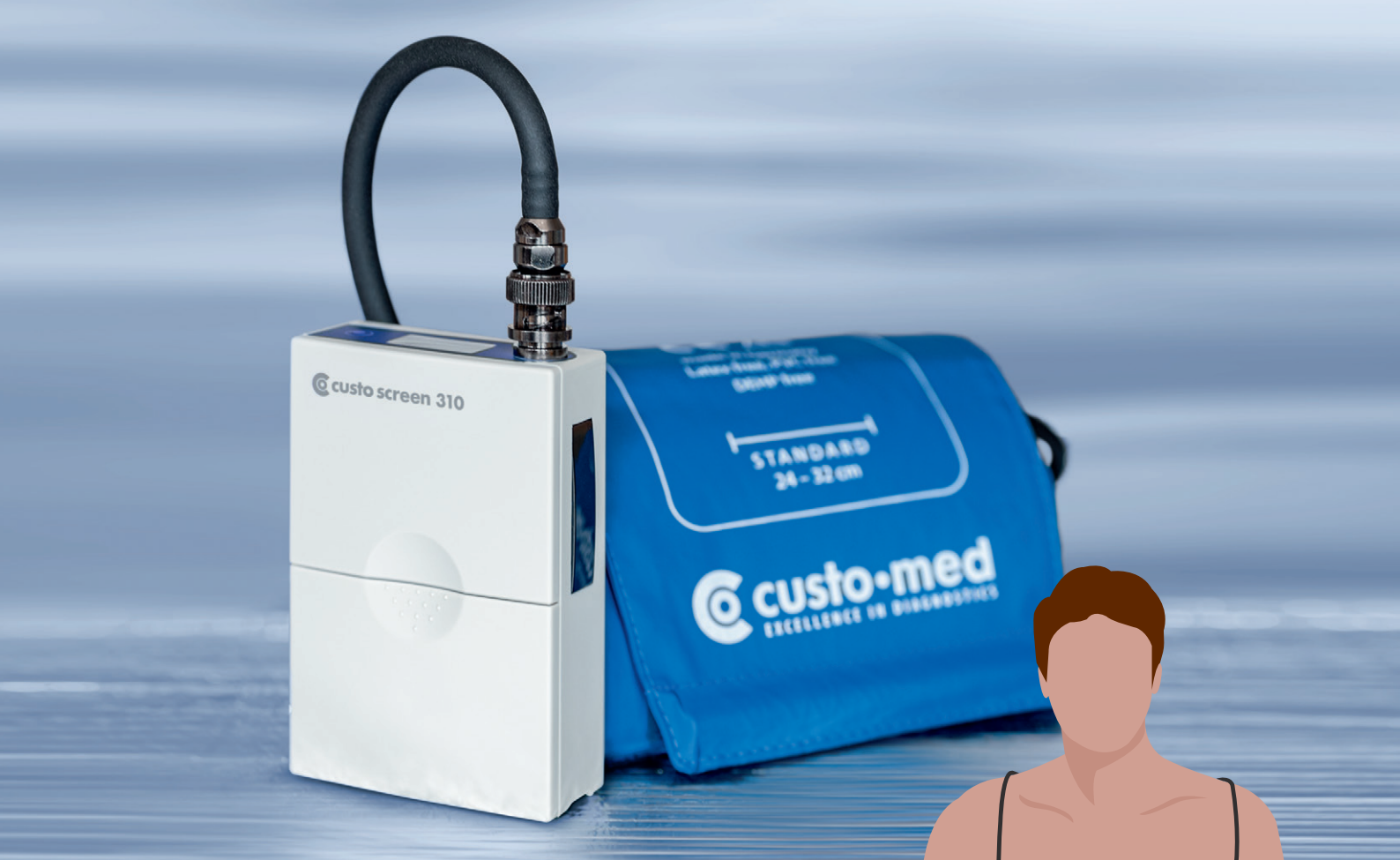
custo screen 300 is the first ABPM recorder worldwide that has been successfully validated according to stringent requirements of the ESH-IP-2010 protocol. This product stands out with its reliable and reproducible measurement results, significantly improved artefact suppression and increased patient comfort. The ambulatory 24-hour blood pressure measurement is the gold standard in diagnosis and therapy of hypertension.

#### **Our Benefits:**

- *Skin-friendly, easy-to-disinfect, synthetic cuff available in sizes S to XXL (latex-free)*
- *High-quality double tube system for significant reduction of motion artefacts*
- *Efficient energy management enables recordings up to 72 hours*
- *Night mode for a restful sleep*
- *Low-noise pump valve unit for patient-friendly measurement*
- *Adaptive algorithm for gentle measurement*
- *Robust recorder with high-performance components for a long product life cycle*
- *Fast data transfer from the recorder to the PC*



**Validation custo screen 300:**  
[www.dableducational.org/sphygmomanometers/devices/\\_3\\_abpm.html#AbpmTable](http://www.dableducational.org/sphygmomanometers/devices/_3_abpm.html#AbpmTable)



## **NEW: custo screen 310**

*Our recorder for measuring central blood pressure and pulse wave!*

It happens again and again that hypertension patients remain undetected or that they are treated insufficiently due to the conventional blood pressure measurement on the upper arm. What does our ABPM recorder custo screen 310 offer?

### **High measurement accuracy**

Our solution provides a very high coherence with invasively measured values.

### **Validated procedure**

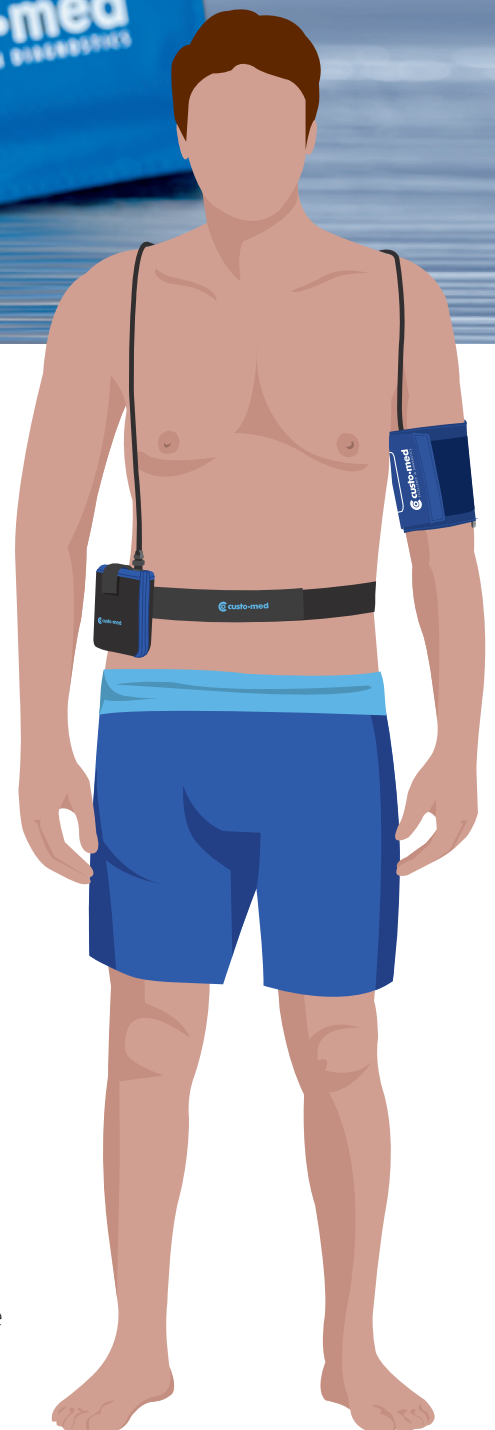
Accuracy has been proved in a multicentre validation study (according to ARTERY protocol).

### **All-in-one device**

The central and brachial blood pressure values, including a pulse wave analysis as single measurement and as 24 hour measurement (ABPM) are available in one device.

### **No additional examinations**

The pulse wave analysis is made automatically during the standard blood pressure measurement.



## *custo screen pediatric*

# *Safe diagnostics for pediatric cardiology*

custo screen pediatric is the first ABPM recorder worldwide for measurement in children, validated according to the stringent requirements of the European Society of Hypertension (ESH-IP 2010). The specially developed measurement technology improves artefact suppression significantly.

Successfully  
validated  
according to  
ESH-IP 2010

### *Our benefits:*

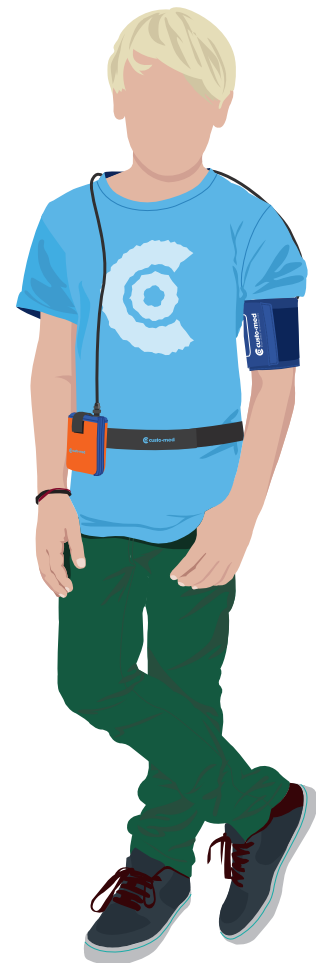
- *Special pump with reduced volume when inflating, for a gentler measurement process*
- *High safety due to double pressure relief valve*
- *Special child cuffs with low volume*
- *Threshold values for children according to pediatric cardiology guideline*
- *Exchangeable top covers with set of motifs*



**3 to 5 years**  
Cuff size:  
Pediatric 14 – 20 cm



**5 to 8 years**  
Cuff size:  
Small 20 – 24 cm



**9 to 12 years**  
Cuff size:  
Standard 24 – 32 cm



*Measurement ranges of custo screen pediatric*

Comparison of measurement ranges:	pediatric	300 310
Heart rate, beats/min:	35 – 220	35 – 220
Systolic blood pressure, mmHg:	50 – 160	70 – 270
Diastolic blood pressure, mmHg:	30 – 110	40 – 155

**German Society of Pediatric Cardiology  
Pediatric cardiology guideline S2k, pediatric nephrology and pediatrics: Arterial hypertension**

**Excerpt: 4.1 Blood Pressure Measurement**

“...The devices used to measure blood pressure are to be validated for children ([www.dablededucational.org](http://www.dablededucational.org)) and the measurement process is to be standardised. As there are strong intra- and inter-individual variations in blood pressure, several single measurements are necessary which have to be verified in ambulatory 24-hour monitoring. It makes sense to measure blood pressure in all children from the age of 3 years, on the occasion of each physical examination as well as in the context of preventive check-ups.”

(S2k Leitlinie Pädiatrische Kardiologie, Pädiatrische Nephrologie und Pädiatrie: Arterielle Hypertonie; Seite 5; [http://www.kinderkardiologie.org/fileadmin/user\\_upload/Leitlinien/LL\\_Arterielle\\_Hypertonie.pdf](http://www.kinderkardiologie.org/fileadmin/user_upload/Leitlinien/LL_Arterielle_Hypertonie.pdf))

## **custo holter ABPM**

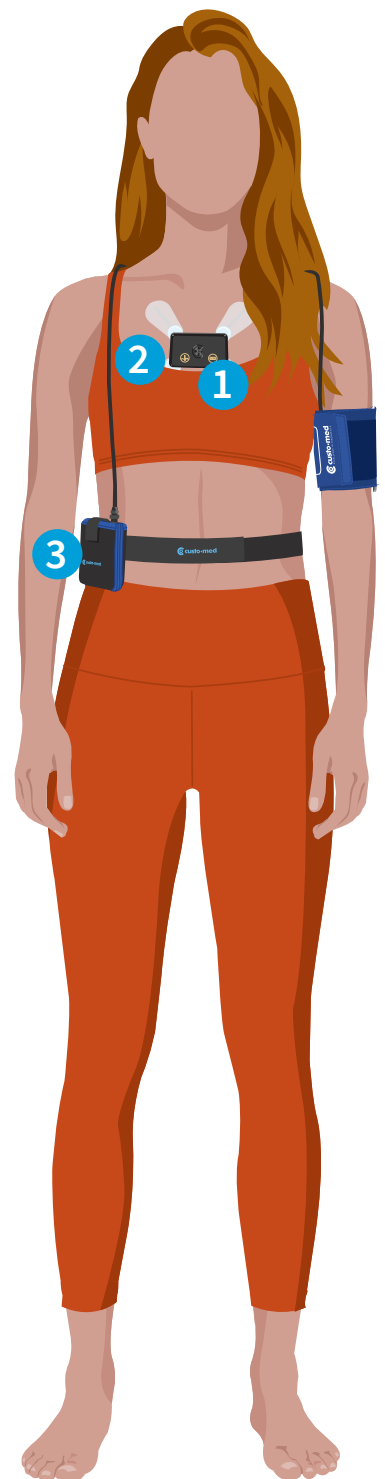
### Synchronous recording of Holter and ABPM

Works  
with any  
custo screen  
recorder!

In order to find out if your hypertension patient is at the same time arrhythmia patient, custo holter ABPM is the right choice.

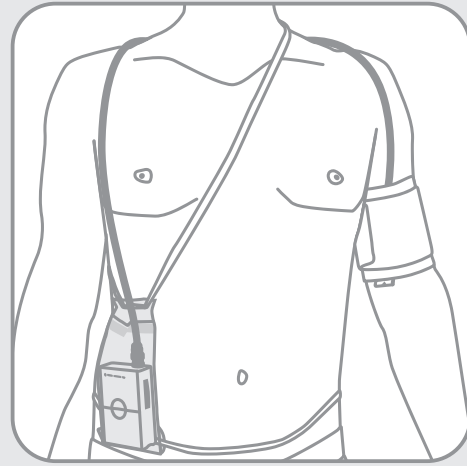
The combination of custo screen 300/310 and custo guard holter is the perfect solution for simultaneous recording of Holter and ABPM. The system provides high wearing comfort without disturbing and artefact prone Holter cables.

- 1 Holter device custo guard holter:**
  - 3-channel lead without any cables
  - Up to 72 hours recording time
  - Pacemaker detection
- 2 Innovative electrodes custo wing:**
  - Easy placement due to snap fasteners
  - Ergonomic shape and adhesive on the whole surface, for extraordinary recording quality
  - Perfect for Holter ECG thanks to particular material properties
- 3 ABPM recorder custo screen 300/310**

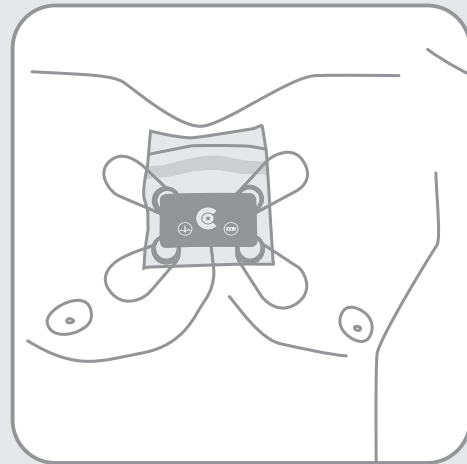




*custo clean SC  
for custo screen*



*custo clean WA3  
for custo guard holster  
with custo wing*



## **custo clean**

*Hygienic and safe – the new disposable bag for your custo med device*

- *Protects patients and medical staff*
- *Extends lifetime of the devices*
- *Easy to handle*
- *Time-saving preparation of devices*
- *100 % recyclable*

*The disposable bags are also available for custo cardio 300, custo flash and custo ECG-cable guard 3*

# ABPM features in the custo diagnostic software

- **Summary of an ABPM recording:** Beside the graphic view of the blood pressure progress, all measured values (systole, diastole, mean arterial pressure, pulse pressure amplitude etc.) are shown.
- Fast and easy identification of the **dipping behaviour** at a glance.
- The **evaluation comparison** enables a detailed comparison of two arbitrary evaluations.
- In the **trend view**, it is possible to trace the progress of different indicators over several evaluations. Thus, the check-up of a long-term therapy is facilitated.
- In the **automatic proposal**, the classification and severity of hypertension, the nocturnal blood pressure behaviour as well as the risk factors and their potential consequences are specified.
- The **printout** includes the single values, the measured value table, the risk assessment and the proposal, clearly arranged on one page.
- **Measurement results which are implausible** (for example outliers) can be excluded from the statistical analysis.
- **All recorder activities are logged** so that all interactions are visible.

User	custo med GmbH	
Patient	Mustermann Franz	10.10.1960 (60 Y.)
Examination	ABPM	17.02.2020 (09:15) - 18.02.2020 (09:00) 23:45

View: Single Values
Standard

	Current	Total	Day	Night	%-dro
Time	13:20				
Blood Pressure	163/104	146/ 94	151/ 97	127/ 81	-16/-1
Heart Rate	66	71	73	66	-10
Limit Values	135/ 85	---/---	135/ 85	120/ 70	---
%>LV	---	---	80/ 83	80/ 87	---

Comparison
Overview
Table
Diagram
Options

**Mustermann Franz**

Dr. Max Mustermann	Patient ID 000000001	Gender Male
Musterweg 7	Date of birth 10.10.1960	Height 185 cm
81234 Musterstadt	Age 59	Weight 85.0 kg
	BMI	24.84 kg/m²

**ABPM** Evaluation 12.04.2020 Duration 23:45 h  
 from 12.04.2020 (09:15) to 13.04.2020 (09:00)  
 Number of valid measurements: 91% (of 81)

BP (mmHg)	Day (06:00 - 22:00)	Night (22:00 - 06:00)	Total	% drop
Average	152 / 97	128 / 81	147 / 94	-16/-16
min	124 / 75	118 / 56	118 / 56	---
max	179 / 119	139 / 88	179 / 119	---
Std. Deviation	15 / 11	5 / 9	17 / 12	---
Standard value*	< 135 / 85	< 120 / 70	< -- / --	-18 / -18
HR Aver. (min-max)	73 (59 - 101)	69 (58 - 73)	71 (58 - 101)	-10

\* According to European Society of Hypertension Practice Guidelines for Ambulatory Blood Pressure Monitoring 2014

Risk assessment	Blood pressure severity <sup>1</sup>			
	normal	Grade 1	Grade 2	Grade 3
No risk factors	Low Risk	Moderate Risk	High Risk	Very High Risk
1 - 2 risk factors	Repeat ABPM within 1-2 years.	Moderate to High Risk	High Risk	Very High Risk
>= 3 risk factors	High Risk	High Risk	High Risk	Very High Risk
diabetes / end-organ damage	Repeat ABPM within 3-6 months.	Very High Risk	Very High Risk	Very High Risk
cardiovascular or renal comorbidities	High Risk	Very High Risk	Very High Risk	Very High Risk

<sup>1</sup> According to ESC/ESH 2013 and BHS 2010/2012/2014

**Unconfirmed Report**

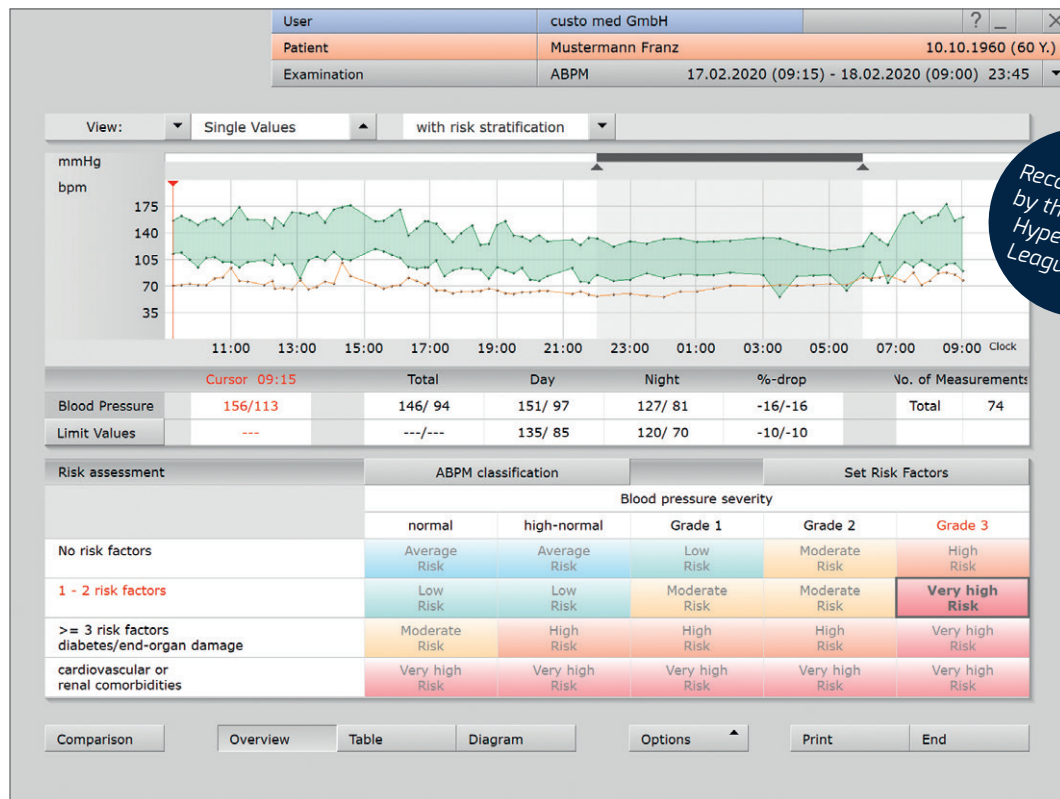
- Classification: Systolic-diastolic hypertension.
- Severity: Due to average systolic/diastolic (152 and 97 mmHg) day-time ABPM hypertension Grade 2.
- Nocturnal blood pressure characteristics: Nocturnal hypertension, the nocturnal blood pressure change is -16/-16 % (normal dipping).
- Specified cardiovascular risk factors or comorbidities: Age, Gender, Positive family history, Abdominal adiposity.
- Risk assessment: The estimated 10 years risk of serious cardiovascular disease (such as heart attack or stroke) on the basis of current risk factors is high.
- ABPM repetition: It is recommended to repeat ABPM within 3-6 months due to nocturnal hypertension.
- Trend analysis: Compared to the unconfirmed report (on 09.03.2020) the following has changed: systolic + 7, diastolic + 3 mmHg.

custo screen 15.04.2020  
 5.3 master-5693 Test License: custo med GmbH - Demo License - Not for Resale - Not for Production Page 1/4



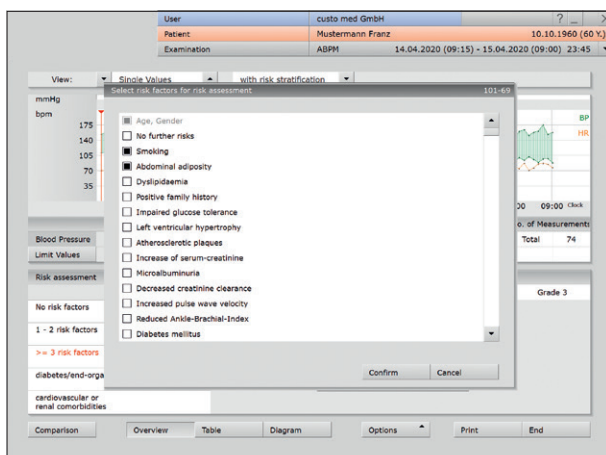
## Risk stratification in custo diagnostic

With the software package “screen professional”, the 10-year risk of a patient for severe cardiovascular disease can be determined.



The risk stratification combines the blood pressure severity with the cardiovascular risk factors and determines the individual risk for the patient. The cardiovascular risks are important for both diagnosis and prognosis of the blood pressure disease.

It gives a clear, simple view and quickly supplies reports thanks to the automatic proposals.



Easy gathering of risk factors

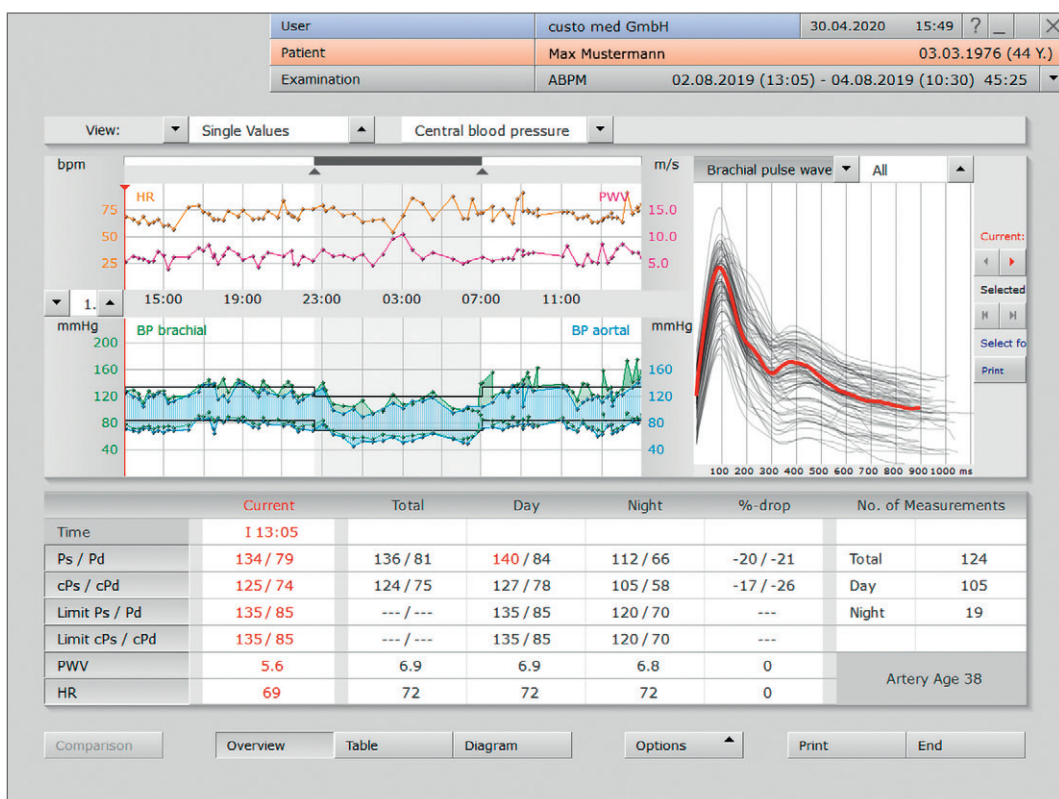


Targeted patient communication

## **NEW** Central blood pressure and pulse wave analysis in custo diagnostic

The central blood pressure is determined with the help of a pulse wave analysis. It serves for better characterising different types of high blood pressure. Central and peripheral blood pressure may deviate strongly from each other, depending on age, risk factors and condition of arteries.

Today, the exclusively brachial blood pressure measurement is no longer sufficient to characterise all forms of hypertension in any age exactly enough and to assess the risk adequately.



### Knowledge about the central blood pressure has the following benefits:

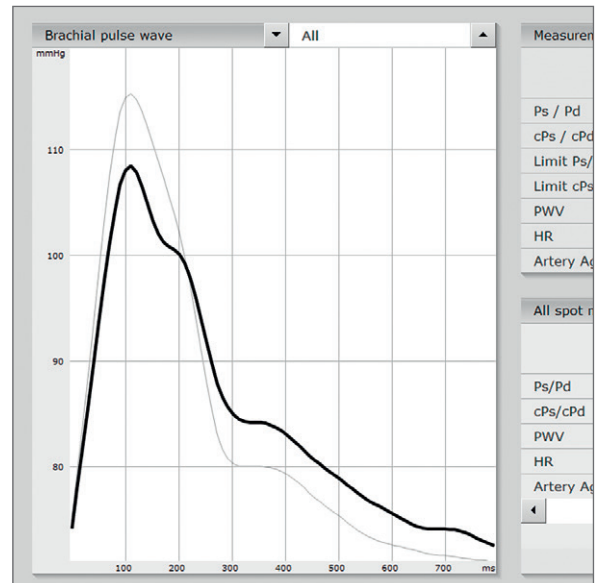
- It allows improved prediction accuracy of future cardiovascular events, going beyond the brachial blood pressure and other cardiovascular risk factors.
- It represents a superior diagnostic precision compared to the brachial blood pressure.
- It allows more individual and enhanced patient care, instead of the usual one that only focuses on brachial blood pressure.

## Spot measurement with custo screen 310

Beside the measurement of long-term blood pressure, the software module allows a spot measurement (single measurement) to assess the cardiovascular risk. Pulse wave velocity is the crucial indicator here.

### The spot measurement includes the following values:

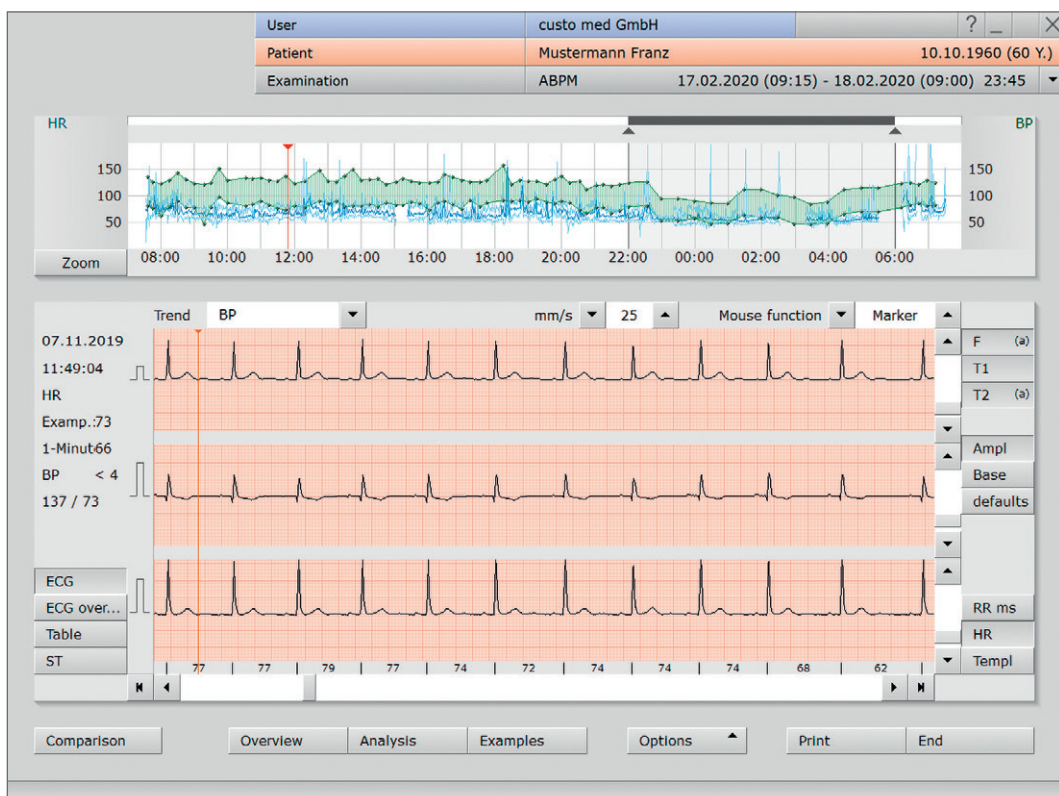
- Brachial and central blood pressure
- Pulse wave velocity
- Heart rate
- Artery age



If pulse wave velocity is suspicious, the spot measurement can justify an ABPM in order to verify suspected hypertension. In the spot measurement, the brachial pulse wave is displayed graphically.

## ABPM and Holter: custo holter ABPM

In the simultaneous recording of Holter and ABPM, the values are shown in compact and clearly structured format so that they can be seen at a glance. It is possible to change to detailed views and analysing functions at any time.



## Innovative system solutions for your diagnostics

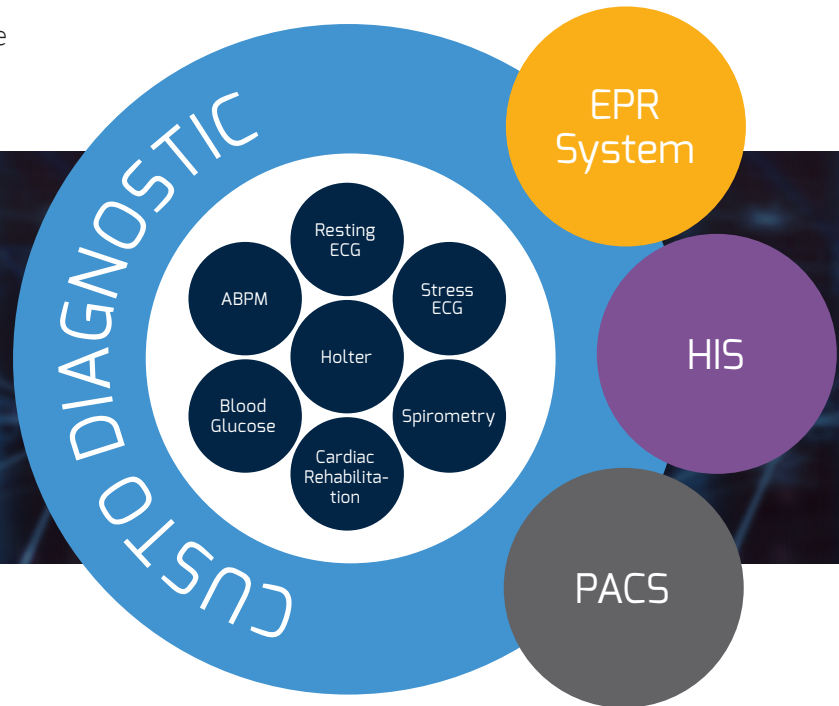
Since 1982, our brand has been representing innovative system solutions in cardiopulmonary diagnostics. In cooperation with committed and competent sales and service partners, we offer professional solutions taking account of your individual organisational circumstances and IT structures. No matter if your installation is based on a stationary or mobile system, a single-user workstation or multi-site network solution, in a doctor's office or in a hospital – your modular custo med system will be a profitable investment for the future.

*Our modular platform custo diagnostic is the intelligent link between clinical engineering and administrative software.*



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85521 Ottobrunn  
Germany

Phone: +49 89 71098 00  
Fax: +49 89 71098 10  
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