MedTach

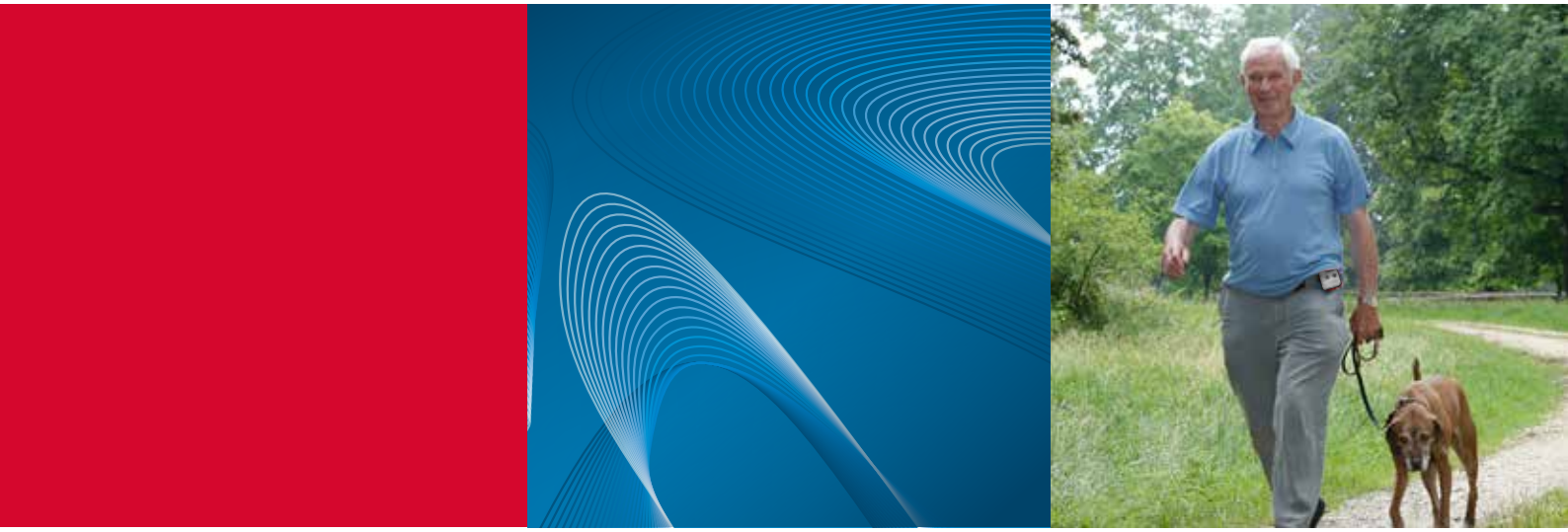
Bringing Innovations to Canadian Clinicians and Researchers

BR-102 PLUS PWA

SCHILLER's Pulse Wave Analysis (PWA): circadian central haemodynamics and blood pressure measurement in one

SCHILLER
The Art of Diagnostics

BR-102 PLUS PWA



BLOOD PRESSURE ALL-ROUNDER

SCHILLER introduces the first solution that combines the non-invasive, cuff-based precise auscultatoric and the reliable oscillometric measurement to generate a 24-hour profile of stiffness parameters like pulse wave velocity and central and peripheral blood pressure.

Based on individual arterial behaviour, it is now possible to evaluate the risk of developing a cardiovascular disease.

PROVEN QUALITY

This algorithm has been fully validated in several studies, even comparisons with the gold standard: invasive catheter BP measurement.

"... algorithm, using brachial cuff-based waveform recordings, is suited to provide a realistic estimation of central systolic pressure." [1]

"The results agree with common accepted tonometric measurements. Its application is easy and for widespread use." [2]

SCHILLER ...

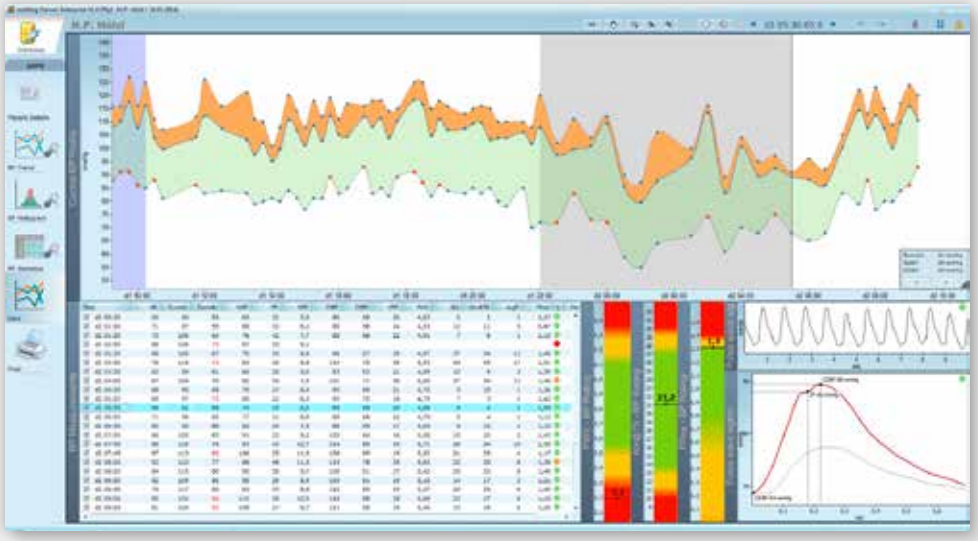
- keeps the cuff pressure as low as possible for increased patient comfort. PWA is performed on diastolic level.
- provides a 48-hour profile and not just spot measurements (tonometric method).
- includes the auscultatoric measurement which is much more reliable.
- has comprehensive validation studies.
- offers a blood pressure measurement device fully integrated in the wide range of SCHILLER diagnostic products, with seamless connectivity to SEMA data management systems and to HIS.
- has a user-friendly interface with colour display.

HOW IT WORKS

The analysis is based on the combination of auscultatoric/oscillometric blood pressure measurement and pulse contour analysis, and provides information about arterial behaviour as well as pulse wave velocity. The stiffer the arteries, the quicker the pulse wave, which increases the risk for cardiovascular disease. The age of the small blood vessels is determined using the augmentation index, an indicator of alterations.

[1] Validation of a Brachial Cuff-Based Method for Estimating Central Systolic Blood Pressure, T. Weber et al / Hypertension / 2011.

[2] A new oscillometric method for pulse wave analysis: comparison with a common tonometric method, S. Wassertheurer et al / Journal of Human Hypertension / 2010.



Since guidelines recommend using PWA for risk stratification but provide no critical value, SCHILLER has a proactive solution: the patients' readings of PWV, AIx and pRes are matched with other patients based on population studies[1]. This gives an idea of how the values perform compared to other people.

[1] PWV: Determinants of pulse wave velocity in healthy people and in the presence of cardiovascular risk factors: 'establishing normal and reference values'
Author: The Reference Values for Arterial Stiffness' Collaboration
published in: European Heart Journal 2010

AIx: Assessment of central haemodynamics from a brachial cuff in a community setting Nunan et al. BMC Cardiovascular Disorders 2012

WHY SCHILLER PWA

Medical point of view

- Significantly improve cardiovascular (CV) risk assessment
- Close correlation between stiffness parameters and coronary heart disease
- Prevent end organ damage due to hypertension
- More effective and more specific therapy – some hypotensive drugs may also increase arterial stiffness
- Differential diagnosis (peripheral resistance increased, stiff arteries or increased cardiac preload)

Economic point of view

- Increase in diagnostic precision
- No additional effort – part of a standard Ambulatory Blood Pressure Monitoring (ABPM)
- Emerging scientific publication possibilities
- No specially trained operator needed
- Reimbursement in several countries available, more and more countries joining

Both the ESH (European Society of Hypertension) and the ESC (European Society of Cardiology) are convinced of the huge potential of PWA and have recommended its use in their guidelines since 2007.

Create clear reports quickly and easily using the DARWIN2 modular reporting system. The level of detail and appearance of reports can be customised as required.

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SCHILLER
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