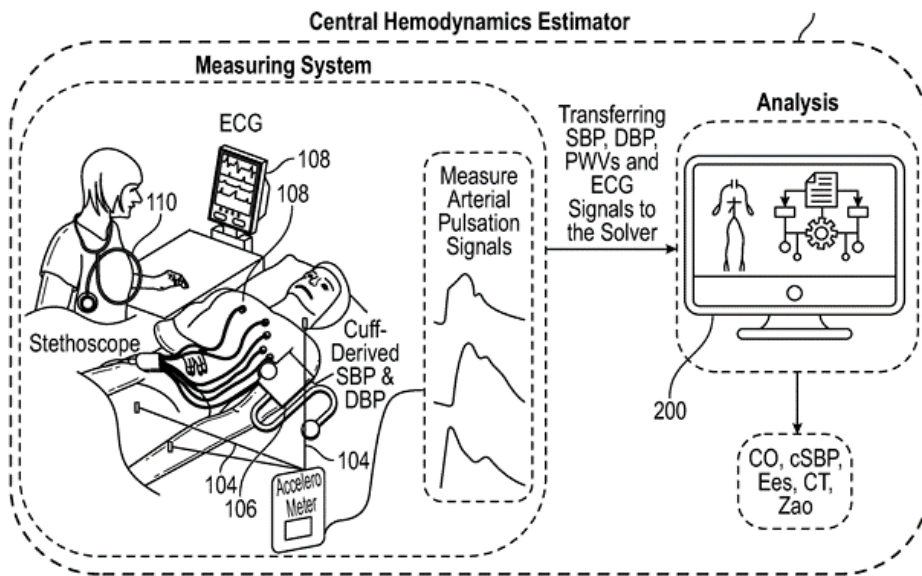


NONINVASIVE ESTIMATION OF CARDIOVASCULAR PARAMETERS



Ref. Nr

6.1988

Keywords

Cardiac output, hemodynamic parameters, machine learning

Intellectual Property

WO2021033097

Publications

Nature Scientific Reports
 volume 10, 15015 (2020)

Date

11/05/2021

The figure illustrates an exemplary system for noninvasively estimating cardiovascular and hemodynamic parameters of a patient.

Description

Cardiovascular hemodynamic parameters, such as cardiac output (CO), aortic (central) systolic blood pressure (cSBP), left ventricular end-systolic elastance (Ees), total arterial compliance (CT) and aortic impedance (Zao) are recognised as being important for informing the diagnostic and/or treatment strategies for patients with impaired cardiovascular function.

Current methods for measuring such parameters are either invasive, costly or imprecise.

The technology provides a unique system that can measure such parameters non-invasively and in real-time using peripheral measurements and accounting for the specific arterial tree of each patient.

Advantages

- Non-invasive and continuous measurement of key hemodynamic parameters
- High precision measurement of hemodynamic parameters
- Accounts for the specificities of patients for personalised treatments

Applications

- Point of care diagnostics and clinical grade measurements
- Also applicable to non-clinical wearables

Offer

Licence and/or collaboration