

Home blood pressure monitoring

As one of the methods **telemedicine** has home blood pressure measurement advantages in noticeably **more data** obtained for a significantly longer period than allowed 24-hour outpatient blood pressure monitoring. It is a valuable tool for the treatment of hypertension, but it must be under properly performed medical supervision and must also look at the overall clinical condition of the patient when interpreting these data in order to make full use of this method. This long-term measurement makes it possible to determine **variability of blood pressure values between days** and allows **evaluate long-term blood pressure variability**. The data obtained in this way can be used, among other things, for prognostic purposes. It can also be used as an educational tool for people with long-term suffering hypertension.

The development of easy-to-operate oscillometric instruments has led to a significant increase in domestic blood pressure measurements in recent years. This has become an increasingly common adjunct to outpatient blood pressure measurement. However, the necessary prerequisites for accurate measurement as correct patient operation of the device remain. It is important to take this into account as well **conditions accompanying the blood pressure measurement itself**, monitoring schedule together with their subsequent interpretation.

Limiting factors

The main limiting factors for the widespread use of this method are, above all, the problems associated with it **proper operation** measuring devices and the associated possibility of using inaccurate instruments and measuring errors. The physician must also take into account the uncertain reliability of the values reported by patients or the risk of a change in the patient's treatment decision based on blood pressure readings without medical supervision. For these reasons, it is important to ensure **adequate patient training** and medical supervision, selection **correctly verified devices** looking at special populations (elderly, children, pregnancy, etc.).

Among other things, it is also important to create an adequate schedule for measuring blood pressure and reporting the results of the measurement to the patient to the doctor with their subsequent correct interpretation.

Benefits of home blood pressure measurement

The benefits include the possibility **determining the effects of treatment at different times of the day and also during an extended period**. Otherwise, the prescription is morning and evening as part of a weekly cycle before a doctor's visit, which should not be repeated often. Other weeks are measured only once a week. This is made possible by repeated measurements of blood pressure and heart rate during the day for several days, or even months in a quiet home environment with good reproducibility and prognostic value at a relatively low cost. It is also a considerable positive **convenient for patients in the home environment**, thus eliminating the stress of outpatient examination lead to falsely higher blood pressure in the office. This eliminates one of the most common causes of the measured elevated pressure. Thus, stress-increased blood pressure due to the "white coat effect" in a surgery with normal BP at home = white coat hypertension can be distinguished from more severe persistent (true) hypertension (both in the surgery and at home). There is also a potential for improving patient adherence to pharmacotherapy and hypertension control through patient reflection.

Links

Related articles

- Blood pressure • Systolic blood pressure • Diastolic pressure
- blood pressure monitoring
- blood pressure monitoring
- Tonometer

External links

<http://www.hypertension.cz/sqlcache/mereni-cast-1.pdf>
<http://www.hypertension.cz/sqlcache/mereni-cast-2.pdf>

References

PELEŠKA, Jan. *Medicína po promoci. Graduation Medicine*. 11, vol. 5, p. 88-96, ISSN 1212-9445.

File:Pressure measurement
by listening method
HowTo.pdf
Home blood pressure
measurement

PARATI, Gianfranco – STERGIOU, George – O'BRIEN, Eoin. European Society of Hypertension practice guidelines for ambulatory blood pressure monitoring. *Journal of Hypertension*. 7, vol. 32, p. 1359-1366, ISSN 0263-6352. DOI: 10.1097 / hjh.0000000000000221 (<http://dx.doi.org/10.1097+%2F+hjh.0000000000000221>).

– MANCIA, Giuseppe – SPIERING, Wilko. 2018 ESC / ESH Guidelines for the management of arterial hypertension. *European Heart Journal*. 33, vol. 39, p. 3021-3104, ISSN 0195-668X. DOI: 10.1093 / eurheartj / ehy339 (<http://dx.doi.org/10.1093+%2F+eurheartj+%2F+ehy339>).

PARATI, G – STERGIOU, G S. European Society of Hypertension Practice Guidelines for home blood pressure monitoring. *Journal of Human Hypertension*. 12, vol. 24, p. 779-785, ISSN 0950-9240. DOI: 10.1038 / jhh.2010.54 (<http://dx.doi.org/10.1038+%2F+jhh.2010.54>).