Subjects with maternal history of hypertension had significantly higher average 24 h systolic BP compared to subjects with no history of parental hypertension (mean difference 7.95 with 95% confidence intervals 0.77 to 15.13 mmHg, Post Hoc Tukey's analysis). No statistically significant differences were found between the other groups.

Conclusions: Offspring with maternal family history of hypertension had higher 24 h systolic BP levels suggesting a possible maternal factor for the emerge of high blood pressure.

PP.14.18 BLOOD PRESSURE MEASUREMENT: THE WAITING TIME BETWEEN READINGS

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Objective: It is recommended to wait at least 1 minute between blood pressure (BP) readings. However there is insufficient evidence on the usefulness of this recommendation using a validated automatic device. The aim was to assess differences in BP according to the waiting time between BP readings.

Methods: Cross-sectional descriptive study in an ambulatory setting with convenience sampling of 150 hypertensive patients. We excluded subjects with atrial fibrillation, or with body mass index higher than 40 kg/m2 or lower than 18 kg/m2.

Patients were seated for 5 minutes before 6 basal BP readings were taken with a validated device (Tensoval Duo Control, Hartmann): 3 BP measurements with no waiting time (noWT) between them and 3 BP measurements with 1 minute of waiting time (1mWT) between each reading, in random order. The first BP reading of each tercet was eliminated from the analysis. The intraclass correlation coefficient (ICC) was calculated between noWT and 1mWT mean BP measurements, with 95% confidence intervals.

Results: 49.3% women, mean age 65.6 ± 12.8 years, mean BP $137 \pm 1.4/80 \pm 0.9$ mmHg, 37.3% with diabetes mellitus and 21.3% with associated cardiovascular disease.

Mean systolic BP (SBP) for noWT and for 1mWT was 135.9 ± 18.3 mmHg and 137.3 ± 18.9 mmHg ($p = 0.045$), respectively. Mean diastolic BP (DBP) was 79.2 ± 12.6 and 79.8 ± 13.0 mmHg ($p = 0.409$), respectively. There was 2.2 ± 10.3 mmHg and 1.2 ± 8.7 mmHg between the second and third SBP readings for 1mWT ($p = 0.009$) and noWT ($p = 0.09$), respectively. ICC between noWT and 1mWT were 0.946 (95% CI: 0.925–0.961) and 0.877 (95% CI: 0.831–0.911) for SBP and DBP, respectively.

Conclusions: BP measurement with 1 minute of waiting time between readings obtains SBP values significantly higher than the BP measurement without time interval between readings. These differences are not clinically relevant. The agreement between noWT and 1mWT is very good.

PP.14.19 HOME BLOOD PRESSURE MEASUREMENTS ARE SUPERIOR TO CLINIC AND AMBULATORY MEASUREMENTS IN PREDICTING TARGET-ORGAN DAMAGE IN HYPERTENSION

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Objective: To compare home (HBP) vs. clinic (CBP) vs. ambulatory blood pressure (ABP) in terms of their association with hypertension-induced target-organ damage.

Methods: A total of 128 untreated subjects (mean age, 50.9?b10.8 years, 70 men) with elevated blood pressure (BP) had measurements of CBP (3 visits, oscillometric device Microlife WatchBP Office), HBP (7 days, oscillometric device Microlife WatchBP Home) and ABP (24-hours, oscillometric devices SpaceLabs 90207/90217 or Microlife WatchBP O3). Target-organ damage was assessed by echocardiographic left-ventricular mass index (LVMI), microalbuminuria (MAU) (two first-morning spots) and carotid-femoral pulse-wave velocity (PWV; Complior).

Results: LVMI was correlated with systolic BP (HBP/CBP $r = 0.45/0.39$ and ABP 24 h/day/night $r = 0.29/0.24/0.32$, all $p < 0.01$) and diastolic HBP ($r = 0.24$, $p = 0.01$) and nighttime ABP ($r = 0.21$, $p = 0.02$). LVMI was also correlated with all pulse pressure (PP) values (home $r = 0.37$, $p < 0.001$; clinic $r = 0.30$, $p = 0.001$; ambulatory $r = 0.24/0.23/0.25$, 24 h/day/night, all $p = 0.01$). MAU was correlated with systolic HBP ($r = 0.28$, $p < 0.01$), CBP ($r = 0.26$, $p < 0.01$) and daytime ABP ($r = 0.23$, $p = 0.01$) and all PP values (home $r = 0.34$, $p < 0.001$; clinic $r = 0.34$, $p < 0.001$; ambulatory 24 h/day/night $r = 0.30/0.33/0.23$, all $p = 0.01$). PWV was correlated only with systolic HBP ($r = 0.22$, $p < 0.05$) and all PP values (home $r = 0.33$, $p = 0.001$; clinic $r = 0.23$, $p < 0.05$; ABP 24 h/day/night $r = 0.26/0.24/0.29$, all $p < 0.05$). In stepwise linear-regression models (dependent variables: age, sex, body mass index [BMI], systolic and diastolic CBP, HBP and ABP; entry/removal criteria of F 0.05/0.1), LVMI was predicted only by systolic HBP ($p < 0.001$) and BMI ($p = 0.01$). In a similar model for PWV, predictors were systolic HBP ($p = 0.03$) and age ($p = 0.001$). Finally, MAU was primarily predicted by systolic HBP ($p < 0.01$) (entry/removal criteria of F 0.01/0.05).

Conclusion: These data suggest that home BP is more closely associated with hypertension-induced target organ damage compared to office or ambulatory BP measurements.

PP.14.20 A RANDOMISED CONTROLLED TRIAL OF TELEMONITORING AND SELF MANAGEMENT IN THE CONTROL OF HYPERTENSION: TELEMONITORING AND SELF MANAGEMENT IN HYPERTENSION (TASMINH2): QUALITATIVE STUDY

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Objective: The TASMINH2 trial was designed to evaluate home monitoring of blood pressure and self-titration of medication by patients with poorly controlled blood pressure. There is no previous evidence regarding how patients feel about self-managing in this way. This study aimed to explore patients' views and experiences of self-monitoring and titration of medication.

Methods: Patients were trained to self-monitor their blood pressure, interpret the readings and adjust their medication, if required, according to a plan agreed in advance with their general practitioner. This qualitative study involved semi-structured interviews undertaken in patients' homes. Topics covered included: knowledge and understanding of hypertension; experience of study training, self-monitoring and adjusting medication; preference for self-management versus usual care. Interviews were tape-recorded and transcribed and continued until theoretical saturation was reached. Constant comparative analysis was used.

Results: 23 patients were interviewed. They found the monitor easy to use and were positive about self-monitoring. Many felt their home readings (2 readings taken 5 minutes apart daily for one week, repeated monthly for a year) were more valid than the single office readings they had previously experienced. Patients did not like taking medication but accepted that it was necessary and all reported being adherent. The sample included both patients who implemented medication changes in accordance with the study protocol and those who chose not to. Patients were more comfortable about making a medication change if their blood pressure readings were substantially above target but were reluctant to implement a change if their readings were borderline, even when they had previously made a medication change successfully. Many patients planned to continue self-monitoring after the study finished and report home readings to their general practitioner.

Conclusions: Patients are willing to be more involved in decisions on medication. Giving patients the ability to measure their own blood pressure and the knowledge to interpret their readings has enabled them to make an informed choice over whether to increase their medication when their readings are borderline normal/raised.

PP.14.21 AUTOMATED OFFICE BLOOD PRESSURE MEASUREMENTS COULD REDUCE THE NEED FOR PERFORMING 24-H AMBULATORY BLOOD PRESSURE MEASURING IN CLINICAL PRACTICE

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Objective: To investigate whether automated office blood pressure (AOBP) is more closely related to cardiac damage than 24-h ambulatory blood pressure measuring (ABPM) in untreated hypertensive patients.