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Objective: Ambulatory blood pressure monitoring (ABPM) and home BP monitoring (HBPM) are two recommended approaches for measuring out-of-office BP. We assessed the willingness and preferences of older adults taking antihypertensive medication to complete out-of-office BP monitoring with ABPM or HBPM and if differences were present across demographic characteristics.

Design and method: We conducted a survey within a prospective cohort study of patients aged 65 + years who were diagnosed with hypertension and taking antihypertensive medication within a diverse integrated health care system. Enrolled participants underwent 24-hour ABPM followed by HBPM for 7 days. Participants who completed both ABPM and HBPM were asked to fill out a self-reported survey on their willingness to undergo ABPM or HBPM if their healthcare provider suggested it, and their preferences for ABPM or HBPM. Group means were compared using t-tests. Chi-square or Fisher's exact test were used to compare group proportions.

Results: We included 167 participants (mean age 74.3 years [range 65–95 years]; 55.7% female; 46.7% non-Hispanic white, 16.8% Hispanic, 15.6% non-Hispanic Black and 17.3% Asian and Pacific Islander; mean research office systolic/diastolic BP 131/68 mm Hg). Overall, 84.4% and 67.1% of participants reported that they would be completely or very willing to perform HBPM for a week and a 24-hour ABPM, respectively, if their doctor thought it would be helpful to measure out-of-office BP. Also, 77.2% (n = 129) of participants preferred HBPM, 21.0% (n = 35) preferred ABPM and 1.8% (n = 3) did not have a preference. A higher proportion of females versus males preferred HBPM (Table). There were no statistically significant differences in preference for ABPM or HBPM by age, race/ethnicity or mean research office BP.

Conclusions: The study results suggest that most older adults taking antihypertensive medication may be willing to undergo either ABPM or HBPM if recommended by their physician. However, HBPM was preferred to APBM.

Table. Blood pressure measurement preference

	Preferred HBPM (N=129)	Preferred ABPM (N=35)	P-value
Age, years			0.97 ¹
Mean (SD)	74.4 (6.8)	74.3 (6.4)	
Median (Range)	74.0 (65.0, 95.0)	72.0 (65.0, 88.0)	
Systolic BP, mm Hg			0.36 ¹
Mean (SD)	131 (13.8)	133 (15.1)	
Median (Range)	129 (110, 177)	132 (100, 171)	
Diastolic BP, mm Hg			0.30 ¹
Mean (SD)	68 (9.1)	70.1 (9.4)	
Median (Range)	68 (48, 93)	69 (55, 90)	
Gender, N (%)			0.04 ²
Female	77 (59.7%)	14 (40.0%)	
Male	52 (40.3%)	21 (60.0%)	
Race/Ethnicity, N (%)			0.73 ³
Asian/Pacific Islander	24 (18.6%)	4 (11.4%)	
Black	20 (15.5%)	6 (17.1%)	
Hispanic	20 (15.5%)	7 (20.0%)	
Other/Unknown	4 (3.1%)	2 (5.7%)	
White	61 (47.3%)	16 (45.7%)	

¹Equal variance two sample t-test; ²Chi-Square test; ³Fisher Exact test
HBPM = Home blood pressure monitoring, ABPM = Ambulatory blood pressure monitoring

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AUSCULTATORY AND OSCILLOMETRIC AMBULATORY BLOOD PRESSURE MONITORING: METHODS COMPARISON IN ADULT PATIENTS

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Background/Introduction: Ambulatory blood pressure monitoring (ABPM) is an out-of-office method of blood pressure (BP) detection in usual patients activities via oscillometric or auscultatory recording devices. Correct measurement is crucial as for diagnosis, as treatment purpose. There are different rules for each method exist, however, they are not respected much for ABPM.

The aim of the study was to compare a combined (oscillometric and auscultatory) ABPM device in adult individuals.

Methods: One-hundred twenty-two patients had 24-hour clock-based definitions (nighttime: 01:00 to 05:59) ABPM patterns (mean age, 62 [95% CI, 60–63] years, 44% men) performed with a combined (oscillometric and AUSCULTATORY) device. Analyzing reading numbers in awake and night periods (not-valid: < 20 and < 7 readings, respectively) the validity was verified. Arterial hypertension was evaluated according to diurnal ABPM.

Results: Twenty-four-hour systolic and diastolic BP were equal using auscultatory and oscillometric monitoring (140.3 and 139.6 mmHg, 77.2 and 79.0, respectively, NS). In hypertensions, 9.5% systolic and 4.0% diastolic BP patterns were outside the limits of agreements according to Bland-Altman analysis. Meanwhile, in normotensive individuals, 6.4% both for systolic and diastolic (for the population, 7.4% systolic and 5.0% diastolic BP).

Conclusion: Using the oscillometric and auscultatory methods for ABPM show the same level of diurnal systolic and diastolic BP, but with the hypertension misclassification along with systolic BP rises in adults.

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FEATURES OF DAILY BLOOD PRESSURE PROFILE IN PATIENTS WITH ARTERIAL HYPERTENSION WITH CHRONIC KIDNEY DISEASE.

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Purpose of the study: To study the daily profile of blood pressure in patients with arterial hypertension (AH) with chronic kidney disease (CKD).

Materials and methods of the study: The study included 120 patients with AH I-III degree, who received inpatient treatment. CKD stages were determined according to the modern KDIGO 2013 classification. Daily blood pressure profile (DAP) was assessed using the Medicomcombi device (Russia).

Results of the study: Among the examined patients, preserved renal function of CKDC1 (eGFR > 90 ml/min/1.73 m²) was observed in 20.8% (n = 25); CKDC2 (eGFR 60–89 ml/min/1.73m²) in 50.8% (n = 61); CKDC3A (eGFR 45–59 ml/min/1.73m²) in 19.2% (n = 23); CKDC3B (eGFR 30–44 ml/min/1.73m²) in 9.2% (n = 11) p < 0.001. CKDC4 and terminal stages were not detected. When analyzing ambulatory blood pressure monitoring (ABPM), it was revealed that according to increasing of degree of CKD, values of the average daily SBP (122.52 ± 9.25 vs 122.13 ± 12.30 vs 121.74 ± 9.43 vs 134.36 ± 15.32 mm Hg, p < 0.013) average daytime SBP (123.56 ± 8.99 vs. 124.00 ± 611.89 vs 123.74 ± 9.73 vs 134.27 ± 15.12 mmHg, p < 0.04), mean night SBP (119.80 ± 13.39 vs 116.75 ± 14.59 vs 116.09 ± 12.04 vs 135.09 ± 16.66 mm Hg, p < 0.001) significantly rises. The load index of elevated daytime and nighttime SBP was high in AH patients with lower eGFR values. Index of SBP daytime: 13.00 ± 14.05 vs 15.43 ± 21.22 vs 10.70 ± 15.04 vs 35.10 ± 34.14% respectively, p < 0.01. Index of SAP nighttime were 33.75 ± 29.35 vs 26.04 ± 31.07 vs 26.58 ± 27.87% vs 66.10 ± 36.05% respectively, p < 0.001. A normal daily profile of SBP/DBP had 28%/32% of patients of the 1st group vs 24.61%/37.70% of patients of the 2nd group vs 37.78%/21.73% of patients of the 3rd group vs 0%/0% of patients of the 4th group, SBP p < 0.01; DBP p < 0.001. The number of non-dippers in SBP was somewhat higher in the group of patients with CKDC3b: night reduction speed (NRS) SBP 40% in group 1 vs 49.1% in group 2 vs 52.17% in group 3 vs 54.54% in group 4 group, p < 0.02. In the group of patients with CKDC3b, individuals with a daily profile of SBP/DBP "night-pickers" significantly prevailed: 32%/20% vs 14.75%/13.11% vs 13.04%/13.04% vs 45.45%/ 54.54% (in groups 1, 2, 3 and 4, respectively) in SBP p < 0.001, in DBP p < 0.001. There was a significant increase in patients with a daily profile of "over-dipper" according to DBP in patients with CKDC3b: 0% vs 4.91% vs 13.04% vs 27.27% p < 0.001.

Conclusion: AH patients with CKD have more pronounced disturbances in the daily blood pressure profile, which contribute to an increased risk of developing complications of arterial hypertension.

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PREVALENCE OF CHRONIC KIDNEY DISEASE IN ARTERIAL HYPERTENSION

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Purpose: To study the prevalence of chronic kidney disease (CKD) markers in patients with arterial hypertension (AH).

Materials and Methods: A retrospective analysis of 188 case histories of patients with AH of 1–3 degrees (ESC/ESH, 2018) who received inpatient treatment was