

Supplementary material

Nowicki J, Silka W, Zalustowicz A, et al. Uncontrolled hypertension and hypertensive urgency: One-year single-center emergency department experience. Pol Heart J. 2024.

Please note that the journal is not responsible for the scientific accuracy or functionality of any supplementary material submitted by the authors. Any queries (except missing content) should be directed to the corresponding author of the article.

Table S1. Antihypertensive treatment among patients with a history of arterial hypertension

Variable	Patients with a history of arterial hypertension n = 454
Prior ED visit for elevated BP, n (%)	80 (17.6)
Median time from the last visit, days, (Q1–Q3) (n = 82)	388 (131–2204)
BB, n (%)	231 (50.9)
ACEI, n (%)	220 (48.5)
CCB, n (%)	127 (28.0)
ARB, n (%)	107 (23.6)
Thiazide diuretics, n (%)	115 (25.3)
Loop diuretics, n (%)	68 (15.0)
Potassium-sparing diuretics, n (%)	20 (4.4)
AB/methyldopa, n (%)	28 (6.2)
Single pill combination, n (%)	77 (17.0)
Number of antihypertensive agents taken, n (%)	
1	88 (19.4)
2	156 (34.4)
>2	152 (33.5)

Abbreviations: AB, alpha-blockers; ACEI, angiotensin-converting enzyme inhibitors; ARB, angiotensin receptor blockers; BB, beta-blockers; BP, blood pressure; CCB, calcium channel blockers; ED, emergency department

Table S2. Use of guidelines-recommended antihypertensive drugs and drug-combinations

Combinations used	
Patients with at least 2 anti-hypertensive medications (n = 360) taking: ARB or ACEI + diuretic or CCB, n (%)	195 (54.2)
Patients with at least 3 anti-hypertensive medications (n = 277) taking: ARB or ACEI + diuretic + CCB, n (%)	54 (19.5)
Use of BB among comorbidity-free ^a patients (n = 236)	
n (%)	98 (41.5)

^aPatients with no reported chronic conditions apart from arterial hypertension

Abbreviations: ACEI, angiotensin-converting enzyme inhibitors; ARB, angiotensin receptor blockers; BB, beta blockers; CCB, calcium channel blockers

Table S3. Examination findings in the emergency department

Variable	Overall group n = 570	Patients not taking chronic antihypertensive medication n = 168	Patients taking chronic antihypertensive medication n = 402	<i>P</i> -value
Performed examinations, n (%)				
CK-MB level	265 (46.5)	70 (41.7)	195 (48.5)	0.09
Troponin I level	380 (66.7)	112 (66.7)	268 (66.7)	0.54
NT-proBNP level	197 (34.6)	60 (36.7)	137 (34.3)	0.49
CRP level	266 (46.7)	79 (47.0)	187 (46.8)	0.59
Electrocardiogram	364 (63.9)	107 (63.7)	257 (63.9)	0.88
Venous blood gas testing	515 (90.4)	153 (91.1)	362 (89.8)	0.69
Median CK-MB, ng/ml (Q1–Q3)	4.1 (2.9–6.3)	3.95 (2.90–7.65)	4.1 (2.9–6.2)	0.22

Elevated CK-MB [n (%)]	27 (4.7)	8 (4.8)	19 (4.7)	0.99
Median troponin I, $\mu\text{g/l}$ (Q1–Q3)	0.018 (0.012–0.036)	0.02 (0.012–0.041)	0.018 (0.012–0.031)	0.86
Elevated troponin I, n (%)	10 (1.8)	3 (1.8)	7 (1.7)	0.97
Median NT-proBNP, pg/ml (Q1–Q3)	348.0 (165.5–785.0)	298.5 (158.0–805.5)	365.0 (170.0–791.0)	0.21
Elevated NT-proBNP, n (%)	144 (25.3)	42 (25.0)	102 (25.6)	0.88
Median CRP, mg/l, (Q1–Q3)	9.85 (7.3–17.0)	10.4 (7.5–15.0)	9.75 (7.1–17.0)	0.60
Elevated CRP, n (%)	60 (10.5)	20 (11.9)	40 (10.0)	0.49
Abnormalities in ECG ^a , n (%)	142 (38.7)	47 (43.9)	95 (37.0)	0.21
Venous blood gas testing parameters				
Median Hb, g/dl, (Q1–Q3)	14.3 (13.4–15.4)	14.9 (13.7–15.9)	14.1 (13.3–15.1)	<0.001
Elevated hemoglobin, n (%)	30 (5.8)	13 (8.5)	17 (4.7)	0.09
Reduced hemoglobin, n (%)	49 (9.5)	9 (5.9)	40 (11.0)	0.08
Median K ⁺ , mmol/l (Q1–Q3)	3.9 (3.6–4.2)	3.9 (3.7–4.2)	3.9 (3.6–4.2)	0.66
Hyperkalemia, n (%)	16 (3.1)	2 (1.3)	14 (3.9)	0.13
Hypokalemia, n (%)	54 (10.5)	14 (9.2)	40 (11.0)	0.55
Median Na ⁺ , mmol/l (Q1–Q3)	140 (138–142)	140 (138–141)	140 (138–141)	0.72
Hypernatremia, n (%)	2 (0.4)	1 (0.7)	1 (0.3)	0.52
Hyponatremia, n (%)	60 (11.7)	12 (7.8)	48 (13.3)	0.09
Median Ca ²⁺ , mmol/l (Q1–Q3)	1.20 (1.17–1.23)	1.20 (1.17–1.23)	1.21 (1.17–1.24)	0.054

Hypercalcemia, n (%)	20 (3.9)	5 (3.3)	15 (4.1)	0.66
Hypocalcemia, n (%)	54 (10.5)	15 (9.8)	39 (10.8)	0.77
Median Cl ⁻ , mmol/l (Q1–Q3)	105 (102–107)	105 (103–107)	104 (102–106)	0.16
Hyperchloremia, n (%)	129 (25.0)	40 (26.1)	89 (24.6)	0.66
Hypochloremia, n (%)	28 (5.4)	5 (3.3)	23 (6.4)	0.17
Median glucose, mmol/l (Q1–Q3)	6.5 (5.8–7.5)	6.4 (5.7–7.4)	6.5 (5.8–7.6)	0.29
Hyperglycemia, n (%)	379 (73.6)	153 (71.2)	270 (74.6)	0.60
Hypoglycemia, n (%)	1 (0.2)	1 (0.7)	0 (0.0)	0.12
Median lactates, mmol/l (Q1–Q3)	1.2 (0.9–1.7)	1.3 (1.0–1.7)	1.2 (0.9–1.6)	0.16
Elevated lactates, n (%)	132 (25.6)	41 (26.8)	91 (24.9)	0.60
Median creatinine, μmol/l (Q1–Q3)	80 (67–96)	79 (64–94)	81 (67–98)	0.20
Elevated creatinine, n (%)	43 (8.3)	12 (7.8)	31 (8.6)	0.81
Reduced Creatinine, n (%)	10 (1.9)	2 (1.3)	8 (2.2)	0.51
Median bilirubin, μmol/l (Q1–Q3)	9 (6–13)	8 (5–12)	9 (5–14)	0.85
Hyperbilirubinemia, n (%)	58 (11.3)	16 (10.5)	42 (11.6)	0.71

^aECG abnormalities refer to any trace of the following: left axis deviation, tachy- or bradycardia, mild ST-segment elevation or depression, signs of atrial enlargements or left ventricular hypertrophy, conduction system blocks, T wave changes or pathological Q waves

Abbreviations: CK-MB, creatine kinase-myoglobin binding; CRP, C-reactive protein; Hb, hemoglobin, NT-proBNP, N-terminal pro-B-type natriuretic peptide.