International Journal of Research in Medical Sciences
Khan AH et al. Int J Res Med Sci. 2026 Sep;14(9):3779-3786
www.msjonline.org
pISSN 2320-6071 | eISSN 2320-6012
DOI: https://dx.doi.org/10.18203/2320-6012.ijrms20263088

Original Research Article

Prevalence of white coat and coincidental hypertension among preoperative patients

Ahsan Habib Khan[1]*, Debabrata Banik[2], Naorin Ahmed[3], Nahin Mahmud[4], Nazmul Huda Naim[5], M. Fahad[6]

[1]Department of Anesthesia, Shaheed Tajuddin Ahmad Medical College Hospital, Gazipur, Bangladesh
[2]Department of Anesthesia, Analgesia and Intensive Care Medicine, Bangladesh Medical University, Dhaka, Bangladesh
[3]Medical Officer, Upazila Health Complex, Kaliakoir, Gazipur, Bangladesh
[4]Department of Anesthesia and ICU, Enam Medical College Hospital, Savar, Dhaka, Bangladesh
[5]Department of Anesthesia, Khokon Memorial Hospital, Sirajgonj, Bangladesh
[6]Department of Anesthesia, BRB Hospitals Limited, Dhaka, Bangladesh

Received: 13 July 2026
Accepted: 14 August 2026

***Correspondence:**
Dr. Ahsan Habib Khan,
E-mail: prodipahsanhabib@gmail.com

ABSTRACT

Background: Hypertension is a major global health concern with significant perioperative implications. White coat hypertension (WCH) and coincidental hypertension (CH) are undiagnosed blood pressure patterns that affect surgical outcomes, sometimes causing unnecessary interventions or delays. This study determined the prevalence of WCH and CH during preoperative assessment at the BMU and associated clinical factors.
Methods: This cross-sectional study was conducted at the department of anesthesia, analgesia and intensive care medicine, Bangladesh Medical University (BMU), Dhaka, Bangladesh, from April 2024 to March 2025 among 2,084 adults who underwent elective surgery at the preoperative assessment unit (PAU). Patients ≥18 years were purposively sampled, blood pressure was measured, and patients were classified as known hypertensive, normotensive, or undiagnosed. Undiagnosed cases were followed up to pre-induction and categorized as white coat or coincidental hypertension. Data were analyzed using SPSS version 27.0.
Results: Among the 2,084 preoperative patients, 445 (21.4%) were hypertensive, 1,561 (74.9%) were normotensive and 78 (3.7%) had previously undiagnosed hypertension, including 26 (33.3%) with white-coat hypertension and 52 (66.7%) with coincidental hypertension. Patients with coincidental hypertension were older, had more comorbidities, experienced more surgical cancellations (11.5% versus 0%; p=0.049), and had significantly higher systolic and diastolic blood pressure throughout the follow-up than those with white coat hypertension (all p<0.05).
Conclusions: Undiagnosed hypertension is common in the preoperative setting, with coincidental hypertension being more prevalent than white coat hypertension and associated with higher perioperative risk and surgical postponement.

Keywords: Blood pressure, Coincidental hypertension, Preoperative assessment, White coat hypertension

INTRODUCTION

Hypertension affects approximately 1.3 billion adults worldwide and remains a leading contributor to global cardiovascular morbidity and mortality.[1] Despite advances in diagnostic techniques and therapeutic options, challenges persist in the accurate classification of hypertension, particularly in perioperative assessment.[2] Within this context, white coat hypertension (WCH) and coincidental hypertension present distinct diagnostic and management challenges that significantly impact surgical planning and anaesthetic outcomes. Hypertension is defined by the European Society of Cardiology and European Society of Hypertension as sustained systolic

blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg in office settings.[3] In perioperative practice, blood pressure is ideally optimized to <160/100 mmHg before elective procedures to reduce complications while avoiding unnecessary delays.[4]

White coat hypertension is characterized by elevated blood pressure in clinical settings with normal out-of-office readings and affects approximately 25-30% of individuals with office hypertension, mainly due to sympathetic activation during clinical encounters.[5] It is triggered during clinic BP measurements and is strongly influenced by anxiety, with spikes occurring on patient arrival and during manual recording.[6] In the preoperative context, WCH may be amplified by anticipatory anxiety related to surgery and limited opportunities for repeated measurements, making accurate diagnosis more difficult.[7] Physiologically, it reflects exaggerated sympathetic activation with increased catecholamines, heart rate, and vascular resistance, influenced by autonomic sensitivity and psychological traits such as anxiety and prior healthcare experiences.[8] Both physiological and psychological factors, including baroreceptor dysfunction and perioperative anxiety, further intensify this response.[9-12]

Coincidental hypertension refers to previously undiagnosed sustained hypertension detected during preoperative evaluation and reflects the large burden of undiagnosed hypertension in the general population, estimated at 35.8%.[13] In Bangladesh, 15.8% of individuals have undiagnosed hypertension.[14] Preoperative assessment often serves as a key opportunity for cardiovascular screening, particularly in patients with limited prior healthcare access.[15] The prevalence of undiagnosed hypertension varies, with studies reporting rates up to 25% among surgical patients, higher in older males and those with limited healthcare contact.[16]

Primary systemic hypertension affects 10-25% of surgical patients and remains a major cause of elective surgery cancellation.[17] White coat hypertension prevalence varies widely from 10-50% depending on definitions and study populations.[18] Detection rates of both WCH and coincidental hypertension differ across settings, with pre-admission clinics identifying higher rates than same-day admissions due to more structured assessment protocols.[16]

Uncontrolled hypertension increases perioperative risks including myocardial ischemia, arrhythmias, stroke, and hemodynamic instability.[19] The prognostic significance of white coat hypertension remains debated, with evidence linking it to increased cardiovascular risk, left ventricular changes, and inflammatory markers, although its risk is generally lower than sustained hypertension.[20] Accurate classification of hypertension subtypes is therefore essential for perioperative risk stratification.[21]

Pre-anaesthetic assessment plays a crucial role in identifying comorbidities and optimizing patients before surgery, although its effectiveness in differentiating hypertension subtypes remains limited.[22] However, several challenges persist, including limited time for repeated measurements, perioperative anxiety, and lack of longitudinal blood pressure data.[23] Variability in surgical cancellation thresholds further highlights the need for better classification and standardized protocols.

Given these gaps, accurate identification and management of white coat hypertension and coincidental hypertension in the preoperative setting remain essential for improving perioperative safety and long-term cardiovascular outcomes. This study aimed to determine the incidence of undiagnosed blood pressure patterns (white coat hypertension and coincidental hypertension) among patients undergoing preoperative assessment at BMU.

Objective

To determine the prevalence of white coat hypertension and coincidental hypertension among patients undergoing preoperative assessment.

METHODS

This cross-sectional study was conducted at the department of anaesthesia, analgesia and intensive care medicine, Bangladesh Medical University (BMU), Dhaka, Bangladesh, from April 2024 to March 2025. A total of 2,084 adult patients attending the preoperative assessment unit (PAU) for elective surgical procedures were included based on predefined inclusion and exclusion criteria to determine the prevalence of white coat hypertension and coincidental hypertension among preoperative patients.

Inclusion criteria

Adult patients aged ≥18 years, ASA physical status I-III, patients undergoing elective surgery at BMU

Exclusion criteria

Emergency surgical cases, patients with cognitive impairment or inability to provide informed consent, history of substance abuse affecting blood pressure, refusal to provide informed consent.

Independent variables included age, gender, BMI, ASA physical status, history of hypertension, comorbidities, and smoking status, while the dependent variables were the prevalence of white coat hypertension and coincidental hypertension. Hypertension was defined as systolic blood pressure ≥140 mmHg and/or diastolic blood pressure ≥90 mmHg in office settings. White coat hypertension was defined as elevated clinic blood pressure with normal out-of-office readings in untreated individuals, whereas coincidental hypertension referred to previously undiagnosed hypertension detected during preoperative assessment with persistently elevated blood pressure. Eligible patients were selected using purposive sampling from the preoperative assessment unit, and data were

collected using a structured data sheet after obtaining informed consent. Blood pressure was measured routinely and patients were categorized as known hypertensive, normotensive, or undiagnosed hypertensive; the later underwent repeated measurements at six predefined time points until the pre-induction phase. Based on follow-up readings, patients were classified as white coat or coincidental hypertension and managed with anxiolytics or antihypertensive therapy accordingly, with surgery proceeding or being postponed depending on blood pressure control. Data were analyzed using SPSS version 27.0, with appropriate statistical tests applied and $p<0.05$ considered significant. Ethical approval was obtained from BMU, and confidentiality was maintained throughout the study.

RESULTS

Among the 2,084 preoperative patients, 1,561 (74.9%) were normotensive, 445 (21.4%) were known hypertensive, and 78 (3.7%) had previously undiagnosed hypertension.

Table 1: Distribution of hypertension status among preoperative patients (n=2084).

Hypertension status	Frequency	Percentage
Hypertensive	445	21.4
Normotensive	1561	74.9
Undiagnosed HTN	78	3.7
Total	2084	100.0

Table 2: Comparison of age and gender according to hypertension status.

Variables		Hypertensive (n=444)	Normotensive (n=1561)	Undiagnosed HTN (n=78)	P value
Age (years) (%)	18-30	7 (1.6)	633 (40.6)	3 (3.8)	<0.001
	31-40	55 (12.4)	386 (24.7)	22 (28.2)	
	41-50	104 (23.4)	267 (17.1)	21 (26.9)	
	51-60	146 (32.9)	183 (11.7)	20 (25.6)	
	61-70	95 (21.4)	78 (5.0)	8 (10.3)	
	>70	37 (8.3)	14 (0.9)	4 (5.1)	
	Mean±SD	54.81±11.88	36.93±13.88	49.00±12.28	<0.001
Gender (%)	Male	204 (45.9)	799 (51.2)	49 (62.8)	0.013
	Female	240 (54.1)	762 (48.8)	29 (37.2)	

Table 3: Comparison of demographic and clinical characteristics between patients with white coat hypertension and coincidental hypertension.

Variables		White Coat HTN (n=26)	Coincidental HTN (n=52)	P value
Age (years)	18-30	3 (11.5)	0 (0.0)	<0.040
	31-40	10 (38.5)	12 (23.1)	
	41-50	7 (26.9)	14 (26.9)	
	51-60	5 (19.2)	15 (28.8)	
	61-70	1 (3.8)	7 (13.5)	
	>70	0 (0.0)	4 (7.7)	
	Mean±SD	42.88±20.73	52.06±11.94	0.001
Gender	Male	17 (65.4)	32 (61.5)	0.740
	Female	9 (34.6)	20 (38.5)	
ASA Physical Status	ASA I	18 (69.2)	17 (32.7)	<0.007
	ASA II	8 (30.8)	33 (63.5)	
	ASA III	0 (0.0)	2 (3.8)	
Medical Condition	Yes	8 (30.8)	35 (67.3)	0.002
	No	18 (69.2)	17 (32.7)	
Body mass index (kg/m^2)	Underweight (<18.5)	0 (0.0)	3 (5.8)	0.688
	Normal weight (18.5-24.9)	14 (53.8)	24 (46.2)	
	Overweight (25.0-29.9)	10 (38.5)	18 (34.6)	
	Obese (≥30.0)	2 (7.7)	7 (13.5)	
	Mean±SD	25.25±3.26	24.96±4.39	0.767

Hypertensive patients had the highest mean age (54.81±11.88 years), followed by patients with undiagnosed hypertension (49.00±12.28 years), whereas normotensive patients had the lowest mean age (36.93±13.88 years) (p<0.001). Most hypertensive patients belonged to the 51-60 years age group (32.9%), whereas normotensive patients were predominantly aged 18–30 years (40.6%). Among patients with undiagnosed hypertension, the largest proportion was in the 31-40 years age group (28.2%). Male patients predominated among those with undiagnosed hypertension (62.8%), whereas females were more common among hypertensive patients (54.1%). Both age and gender distributions differed significantly among the groups (p<0.001 and p=0.013, respectively).

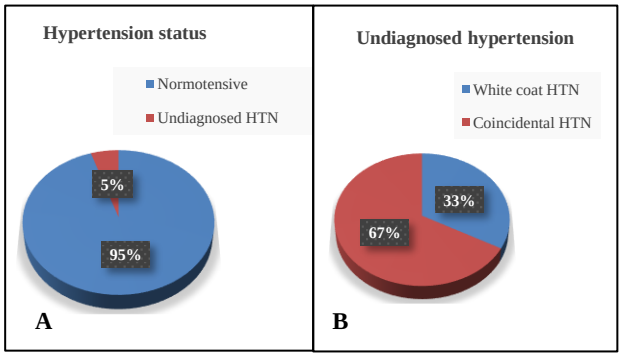

Figure 1 (A and B): Distribution of normotension and undiagnosed hypertension (white coat hypertension and coincidental hypertension) among preoperative patients.

Among the 1,639 patients without a previous diagnosis of hypertension, 1,561 (95.2%) were normotensive and 78 (4.8%) had undiagnosed hypertension. Among the patients with undiagnosed hypertension, 26 (33.3%) had white coat hypertension, whereas 52 (66.7%) had coincidental hypertension.

Patients with coincidental hypertension were significantly older than those with white coat hypertension (52.06±11.94 versus 42.88±20.73 years; p=0.001), with a significant difference in age distribution between the groups (p<0.040). Gender distribution was comparable between the two groups (p=0.740). Patients with white coat hypertension were more frequently classified as ASA physical status I (69.2%), whereas those with coincidental hypertension were predominantly classified as ASA II (63.5%) (p<0.007). Comorbid medical conditions were significantly more common among patients with coincidental hypertension than among those with white coat hypertension (67.3% versus 30.8%; p=0.002). No significant differences were observed in body mass index distribution or mean body mass index between the two groups (p=0.688 and p=0.767, respectively) (Table 3).

Premedication use was similar between patients with white coat hypertension and coincidental hypertension, with no statistically significant difference (7.7% versus 11.5%, p=0.598). All patients with white coat hypertension underwent their planned operations, whereas 6 (11.5%) patients with coincidental hypertension had their operations cancelled, resulting in a statistically significant difference in surgical outcome between the two groups (p=0.049).

Table 4: Comparison of premedication use and surgical outcome between patients with white coat hypertension and coincidental hypertension.

Variables		White Coat HTN (n=26)	Coincidental HTN (n=52)	P value
Premedication	No	24 (92.3)	46 (88.5)	0.598
	Yes	2 (7.7)	6 (11.5)	
Surgical outcome	Operation cancelled	0 (0.0)	6 (11.5)	0.049
	Operation done	26 (100.0)	46 (88.5)	

Table 5: Comparison of systolic blood pressure between white coat hypertension and coincidental hypertension across follow-up measurements.

UHTN	BPA	CR1	CR2	CR3	APA1	APA2	APA3	F value	P value
WCHTN (n=26)	126.54± 3.94	142.69± 4.29	151.77± 10.07	142.88± 4.72	132.50± 2.55	128.08± 3.76	144.23± 3.92	49.12	<0.001
CIHTN (n=52)	142.60± 6.44	151.77± 10.07	143.08± 5.30	151.77± 10.07	150.52± 10.32	144.58± 8.49	148.33± 10.17		

Patients with coincidental hypertension consistently had higher systolic blood pressure values than patients with white coat hypertension across all follow-up measurements. The difference in systolic blood pressure between the two groups was statistically significant (F=49.12, p<0.001).

Patients with coincidental hypertension consistently had higher diastolic blood pressure values than patients with white coat hypertension across all follow-up measurements. The difference in diastolic blood pressure between the two groups was statistically significant (F=49.12, p<0.001).

Table 6: Comparison of diastolic blood pressure between white coat hypertension and coincidental hypertension across follow-up measurements.

UHTN	BPA	CR1	CR2	CR3	APA1	APA2	APA3	F value	P value
WCHTN (n=26)	80.19±0.98	90.77±2.71	90.77±2.71	90.77±2.71	83.08±2.48	80.38±1.35	90.38±2.41	49.12	<0.001
CIHTN (n=52)	89.27±5.05	95.10±8.41	95.10±8.41	95.10±8.41	94.27±8.31	91.15±6.78	90.38±2.41		

DISCUSSION

This study aimed to evaluate the prevalence of white coat hypertension and coincidental hypertension among patients undergoing pre-operative assessment at BMU. The findings provide crucial insights into the prevalence, demographic characteristics, clinical parameters, and implications of hypertension in surgical candidates.

The overall prevalence of hypertension among preoperative patients in this study was 21.4%, with an additional 3.7% having previously undiagnosed hypertension. Among patients without a previous diagnosis of hypertension, 4.8% were found to have undiagnosed hypertension. These findings align with previous reports, where perioperative hypertension has been observed in approximately 25% of patients with chronic hypertension undergoing surgery.[24] This highlights the importance of preoperative blood pressure monitoring and the need for early detection of hypertension, including undiagnosed cases, to mitigate the risks of perioperative complications.

A significant association was observed between age and hypertension status ($p<0.001$), with coincidental hypertension (CH) patients being significantly older than white coat hypertension (WCH) patients (52.06±11.94 years versus 42.88±20.73 years, $p=0.001$). This finding is consistent with studies indicating that the prevalence of sustained hypertension increases with advancing age. For instance, Rismiati and Lee highlighted that hypertension affects a growing proportion of the elderly population globally.[25] Moreover, the prevalence of hypertension in patients aged 45 years or older undergoing non-cardiac surgery increased from 52% in 2004-2005 to 63% in 2012-2013 in the US.[25] Conen et al also found that the prevalence of WCH increases with age, rising from 2.2% in individuals aged 18-30 years to 19.5% in those aged ≥70 years, whereas masked hypertension was more common in younger individuals (18.2%) than in older adults (10.2%).[26] These findings suggest that, with increasing age, the prevalence of hypertension, particularly sustained hypertension, also increases. This underscores the importance of careful preoperative blood pressure evaluation, especially in older individuals.

Among all preoperative patients, 1.2% were classified as having white coat hypertension (26 of 2,084 patients), whereas among patients with undiagnosed hypertension, 33.3% had white coat hypertension. This finding is notably lower than that reported by Pioli et al, who found that WCH is present in approximately 25-30% of individuals undergoing clinical assessments.[5] This underscores the necessity for accurate blood pressure evaluation to differentiate between true hypertension and stress-induced elevations in blood pressure.

Similarly, 2.5% of all preoperative patients were classified as having coincidental hypertension (52 of 2,084 patients), representing 66.7% of patients with undiagnosed hypertension. This differs from the findings of Hossain et al, who reported that undiagnosed hypertension is a significant concern, with nearly 15.8% of patients in their study having masked or undetected hypertension.[14] These findings highlight the critical need for better screening and early detection of hypertension in the preoperative setting to reduce the risks of perioperative complications.

The prevalence of WCH varies depending on the clinical setting. While the overall prevalence of WCH in the general population is estimated to be between 10% and 15%, it has been reported to be as high as 30% among patients with elevated clinic blood pressure (BP) readings.[27] This difference may be attributed to variations in diagnostic procedures and clinical settings, as WCH prevalence tends to be higher in high-stress environments such as pre-operative assessments.

The prevalence of hypertension and undiagnosed hypertension in this study differs from previous findings because of variations in screening settings and patient management. While Pioli et al and Huang et al reported a WCH prevalence of 10-30%, this study found a prevalence of 1.2% among all preoperative patients.[5,27] One possible explanation is that many patients were initially screened in the surgical wards or outpatient departments before attending the PAU. If WCH was identified during these earlier assessments, antihypertensive treatment was often initiated immediately by the attending physician. Consequently, by the time patients attended the PAU, many were no longer classified as having WCH. Therefore, fewer cases of WCH were detected during the PAU assessment than may have actually occurred.

Similarly, compared with Hossain et al., who reported 15.8% undiagnosed hypertension, this study found 4.8% undiagnosed hypertension among patients without a previous history of hypertension.[14] This difference may be attributable to variations in the study population and diagnostic criteria. These discrepancies highlight the need for standardized hypertension assessment for accurate diagnosis and pre-operative management.

Regarding gender distribution, hypertensive patients had a higher proportion of females (54.1%), whereas undiagnosed hypertension was more common among males (62.8%). These findings align with Nemcsik et al., who reported that females (OR: 1.59; 95% CI: 1.32-1.92; p<0.001) tend to have a higher prevalence of office-measured hypertension due to increased stress responses, whereas males (OR: 1.31; 95% CI: 1.12-1.54; p<0.001) are more likely to have undiagnosed hypertension because of lower healthcare-seeking behavior.[28] However, unlike the present study, which found no significant gender difference between the WCH and CH groups (p=0.740), Stergiou et al. observed that WCH was more common among females (53.4%), suggesting potential variations in autonomic stress responses between genders.[29]

The ASA physical status classification system demonstrated a significant difference between the WCH and CH groups (p<0.007). Most WCH patients were classified as ASA I (69.2%), whereas CH patients were predominantly classified as ASA II (63.5%). This finding is consistent with the study by Singh, which reported that WCH is more commonly associated with ASA physical status I.[30]

Comorbid medical conditions were significantly more common among patients with CH than among those with WCH (67.3% versus 30.8%; p=0.002). This aligns with the findings of Aronow, who reported that patients with sustained hypertension tend to have a higher prevalence of metabolic syndrome, diabetes, and cardiovascular disease.[31]

BMI analysis in this study showed no significant differences between WCH and CH patients (p = 0.688 for BMI categories and p=0.767 for mean BMI), indicating that BMI alone may not be a distinguishing factor between transient and sustained hypertension in the pre-operative setting. This finding contrasts with the study by Jardim et al, which reported a positive association between BMI and both white-coat hypertension (OR 1.23; 95% CI 1.16-1.30; p<0.001) and sustained hypertension (OR 1.19; 95% CI 1.11-1.29; p<0.001).[32] The discrepancy suggests that although BMI may contribute to hypertension risk in broader populations, other factors such as autonomic nervous system activity and stress reactivity may play a more important role in differentiating WCH from CH in pre-operative patients.

Regarding surgical outcomes, all WCH patients underwent their planned operations, whereas 11.5% of CH patients had their procedures cancelled, resulting in a statistically significant difference between the groups (p=0.049). This aligns with the findings of Aronow, who reported that sustained hypertension is an important cause of pre-operative surgical postponement.[33] These findings reinforce the need for better perioperative blood pressure optimization to prevent surgical delays and associated healthcare costs.

Follow-up blood pressure measurements revealed consistently higher systolic and diastolic blood pressure values in CH patients than in WCH patients throughout the observation period. The differences were statistically significant for both systolic and diastolic blood pressure (p<0.001). Similar findings were reported by Stergiou et al and Pioli et al, who demonstrated that WCH is characterized by transient BP elevation that normalizes outside the clinical setting, whereas patients with sustained hypertension continue to exhibit persistently elevated BP.[5,29]

Despite these differences, the use of premedication did not differ significantly between the WCH and CH groups (p=0.598). Our findings contrast with those of Kario et al, who reported that patients with WCH were more likely to receive anxiolytic medications, emphasizing the role of stress management in blood pressure regulation.[34] In the present study, anxiolytics administered before surgery helped optimize blood pressure in patients with WCH, and none of these patients required postponement of surgery. In contrast, patients with CH received antihypertensive medications; however, 11.5% failed to achieve adequate blood pressure control and consequently had their operations postponed.

The findings of this study are consistent with previous research demonstrating the age-related increase in sustained hypertension and the clinical importance of ASA physical status in pre-operative risk assessment. Although our study corroborates previous findings regarding blood pressure trends, comorbidities, and surgical postponement, differences in gender distribution, BMI, and premedication use indicate that further investigation is warranted.

This study underscores the importance of accurate blood pressure assessment during pre-operative evaluation, as a considerable proportion of patients had previously undiagnosed hypertension. It also emphasizes the need to minimize unnecessary surgical and anesthetic cancellations while maintaining cost-effective patient care. Early identification and appropriate management of hypertension are essential for reducing perioperative morbidity and mortality and improving overall surgical outcomes.

This study had some limitations. Blood pressure was measured by different healthcare providers using different blood pressure devices, which may have contributed to variations in blood pressure readings. Normotensive patients may develop white coat hypertension before the induction of anesthesia; however, such patients were not included in this study.

CONCLUSION

The prevalence of undiagnosed hypertension in the preoperative setting was notable in this study, with coincidental hypertension being more prevalent than white coat hypertension. Patients with coincidental hypertension

had higher perioperative risk classifications and were more likely to experience surgical postponement, emphasizing the importance of accurate blood pressure assessment. Careful monitoring to distinguish transient blood pressure elevation from persistent hypertension may improve perioperative risk stratification and ultimately lead to better surgical and anesthetic outcomes.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. World Health Organization. Global report on hypertension: the race against a silent killer. World Health Organization; 2023.
2. Gill R, Goldstein S. Evaluation and management of perioperative hypertension. In: StatPearls. StatPearls Publishing; 2023.
3. McEvoy JW, McCarthy CP, Bruno RM, Brouwers S, Canavan MD, Ceconi C, et al. 2024 ESC Guidelines for the management of elevated blood pressure and hypertension: Developed by the task force on the management of elevated blood pressure and hypertension of the European Society of Cardiology (ESC) and endorsed by the European Society of Endocrinology (ESE) and the European Stroke Organisation (ESO). Eur Heart J. 2024;45(38):3912-4018.
4. Hartle A, McCormack T, Carlisle J, Anderson S, Pichel A, Beckett N, et al. The measurement of adult blood pressure and management of hypertension before elective surgery: Joint Guidelines from the Association of Anaesthetists of Great Britain and Ireland and the British Hypertension Society. Anesthesia. 2016 Mar;71(3):326-37.
5. Pioli MR, Ritter AM, de Faria AP, Modolo R. White coat syndrome and its variations: differences and clinical impact. Integrated blood pressure control. 2018:73-9.
6. Martin CA, McGrath BP. White-coat hypertension. Clin Exp Pharmacol Physiol. 2014;41(1):22-9.
7. Cobos B, Haskard-Zolnierek K, Howard K. White coat hypertension: improving the patient-health care practitioner relationship. Psychol Res Behav Manag. 2015:133-41.
8. Elendu C, Amaechi DC, Elendu TC, Amaechi EC, Elendu ID. Dependable approaches to hypertension management: a review. Medicine. 2024;103(24):e38560.
9. Siegel WC, Blumenthal JA, Divine GW. Physiological, psychological, and behavioral factors and white coat hypertension. Hypertension. 1990;16(2):140-6.
10. Spruill TM, Pickering TG, Schwartz JE, Mostofsky E, Ogedegbe G, Clemow L, et al. The impact of perceived hypertension status on anxiety and the white coat effect. Ann Behav Med. 2007;34(1):1-9.
11. Pickering TG, Friedman R. The white coat effect: a neglected role for behavioral factors in hypertension. In: Stress, coping, and disease. Routledge. 2013:35-49.
12. Mancia G, Facchetti R, Bombelli M, Cuspidi C, Grassi G. White-coat hypertension: pathophysiological and clinical aspects: excellence award for hypertension research 2020. Hypertension. 2021;78(6):1677-88.
13. Anuli I, Jideuma E, Frank O, Chinonye O, Chiagozie N, Hope I, et al. The burden of undiagnosed hypertension and associated risk factors among adults in a rural community in Imo State, South-East Nigeria. Int J Clin Med. 2024;15(2):101-22.
14. Hossain A, Suhel SA, Chowdhury SR, Islam S, Akther N, Dhor NR, et al. Hypertension and undiagnosed hypertension among Bangladeshi adults: Identifying prevalence and associated factors using a nationwide survey. Front Public Health. 2022;10:1066449.
15. T O'Donnell F. Preoperative evaluation of the surgical patient. Missouri Med. 2016;113(3):196.
16. Mengistu K, Geleta D. Prevalence of preoperative hypertension and its intraoperative anesthetic management among patients undergoing elective surgery at Hawassa University Comprehensive Specialized Hospital, Southern Ethiopia. Int J Med Med Sci. 2019;11(2):11-9.
17. Misra S. Systemic hypertension and non-cardiac surgery. Indian J Anaesth. 2017;61(9):697-704.
18. Nuredini G, Saunders A, Rajkumar C, Okorie M. Current status of white coat hypertension: where are we? Ther Adv Cardiovasc Dis. 2020;14:1753944720931637.
19. Fayad A, Yang H. Is peri-operative isolated systolic hypertension (ISH) a cardiac risk factor? Curr Cardiol Rev. 2008;4(1):22-33.
20. Manios ED, Koroboki EA, Tsivgoulis GK, Spengos KM, Spiliopoulou IK, Brodie FG, et al. Factors influencing white-coat effect. Am J Hypertens. 2008;21(2):153-8.
21. Tait A, Howell SJ. Preoperative hypertension: perioperative implications and management. BJA Educ. 2021;21(11):426-32.
22. Zambouri A. Preoperative evaluation and preparation for anesthesia and surgery. Hippokratia. 2007;11(1):13.
23. Mohseni S, Behnam-Roudsari S, Tarbiat M, Shaker P, Shivaie S, Shafiee MA. Perioperative hypertension etiologies in patients undergoing noncardiac surgery in University Health Network Hospitals- Canada from 2015-2020. Integr Blood Pressure Control. 2022:23-32.
24. Lien SF, Bisognano JD. Perioperative hypertension: defining at-risk patients and their management. Curr Hypertens Rep. 2012;14(5):432-41.
25. Rismiati H, Lee HY. Perioperative management of hypertensive patients. Cardiovasc Prevent Pharmacother. 2021;3(3):54-63.

26. Conen D, Aeschbacher S, Thijs L, Li Y, Boggia J, Asayama K, et al. Age-specific differences between conventional and ambulatory daytime blood pressure values. Hypertension. 2014;64(5):1073-9.
27. Huang Y, Huang W, Mai W, Cai X, An D, Liu Z, et al. White-coat hypertension is a risk factor for cardiovascular diseases and total mortality. J Hypertens. 2017;35(4):677-88.
28. Nemcsik J, Takacs J, Kekk Z, Farsang C, Simon A, Pall D, et al. White-coat effect and masked hypertension in patients with high-normal office blood pressure: results of the Hungarian ABPM Registry. J Hypertens. 2024;42(11):1976-84.
29. Stergiou GS, Asayama K, Thijs L, Kollias A, Niiranen TJ, Hozawa A, et al. Prognosis of white-coat and masked hypertension: International Database of HOme blood pressure in relation to Cardiovascular Outcome. Hypertension. 2014;63(4):675-82.
30. Singh D. Perioperative concerns in patients with 'white coat hypertension'. Anaesth Pain Intens Care. 2019.
31. Aronow WS. Masked hypertension. Ann Translat Med. 2017;5(23):456.
32. Jardim TV, Carneiro CD, Morais P, Roriz V, Mendonca KL, Nascente FM, et al. White-coat, masked and sustained hypertension detected by home blood pressure monitoring in adolescents: prevalence and associated factors. Blood Press. 2018;27(3):151-7.
33. Aronow WS. Management of hypertension in patients undergoing surgery. Ann Translat Med. 2017;5(10):227.
34. Kario K, Thijs L, Staessen JA. Blood pressure measurement and treatment decisions: masked and white-coat hypertension. Circul Res. 2019;124(7):990-1008.

Cite this article as: Khan AH, Banik D, Ahmed N, Mahmud N, Naim NH, Fahad M. Prevalence of white coat and coincidental hypertension among preoperative patients. Int J Res Med Sci 2026;14:3779-86.