

CURRENT SITUATION OF HYPERTENSION PATIENT MANAGEMENT AND TREATMENT IN BAT XAT DISTRICT, LAO CAI PROVINCE, IN 2020

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Received: 18/05/2025

Revised: 07/06/2025; Accepted: 30/06/2025

ABSTRACT

Objective: To describe the current situation of hypertension patient management and treatment at commune health stations in Bat Xat district, Lao Cai province, in 2020.

Subjects and Methods: A descriptive cross-sectional study was conducted, retrospectively reviewing 510 records/patient files of hypertension patients undergoing treatment at 20 commune health stations, while also collecting secondary data related to hypertension management and treatment activities in Bat Xat district from June 2019 to September 2020.

Results: The study highlighted several strengths in hypertension (HTN) management at commune health stations, with 100% of stations having sufficient medical staff and equipment, as well as 100% of staff being trained and patient records being established. However, the stations still face significant challenges such as a shortage of essential medicines and operational funding. Although the target blood pressure achievement rate was 66.9% for both groups, the HTN detection rate through screening was low, and the establishment of outpatient medical records was limited in the group without WHO support. The results showed that HTN management activities were significantly better in communes with WHO support, while also emphasizing the role of factors such as policies, funding, and organizational models in the effectiveness of disease management.

Conclusion: The management of hypertension at commune health stations has strengths in human resources and facilities, but still faces many limitations in funding and medication. The WHO plays a crucial role in ensuring operational effectiveness.

Keywords: Hypertension management and treatment, hypertension.

1. INTRODUCTION

According to the World Health Organization (WHO), 9 million people die each year from hypertension (HTN), accounting for 12.8% of global deaths. Hypertension causes death and disability, leaving severe mental and economic consequences for families and society. Hypertension is becoming a pressing issue due to its rapid increase in the community. Vietnam has about 12 million people with hypertension, but only 43% of them are detected, and only 14% are managed and treated, while 56.9% remain undetected [1].

Hypertension management and treatment is a coordinated system of interventions and healthcare

communication for the community, where patients' self-care efforts play a crucial role. Bat Xat district is located in the Northwest of Lao Cai province, with 20 communes and one town, a population of 79,067 people, of whom 20,110 are 40 years old or older. Since late 2018, the World Health Organization has supported the implementation of the Hypertension Management and Treatment Program in 11 communes (including three communes that are pilot communes of the Ministry of Health implementing pilot commune health stations according to Family Medicine principles). As of June 30, 2020, 19,407 out of 20,110 people aged 40 and over in the district had been screened, and 1,820

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cases of hypertension were identified.

To evaluate the hypertension management and treatment in communes within Bat Xat district, and to propose solutions to control hypertension in the district, we conducted this study with the objective: *"To describe the current situation of hypertension patient management and treatment at commune health stations in Bat Xat district, Lao Cai province in 2020"*.

2. SUBJECTS AND RESEARCH METHODS

2.1. Study design

Descriptive cross-sectional study.

2.2. Location and time of study

The study was conducted at 20 commune health stations in Bat Xat district, Lao Cai province, from June 2019 to June 2020.

2.3. Subjects of study

As of the end of June 2020, all 510 medical records related to hypertension treatment are being managed at the commune health station in Bat Xat district.

Documents, reports, and plans of the district Health Center on management and treatment of non-communicable diseases from 2019 to June 2020.

2.4. Sample Size and Sampling Method

All 510 patient records/files from 20 commune health stations in Bat Xat district were selected.

2.5. Data collection method: Data was collected through a questionnaire summarizing hypertension status from patient records and reports of commune health stations.

2.6. Data analysis: The data were processed and analyzed using Epidata and SPSS 16.0 software.

2.7. Research ethics

The study was conducted with the permission of the commune health stations. All information collected from the subjects was used solely for research purposes and kept strictly confidential. The data ensured scientific rigor, reliability, and accuracy.

3. RESEARCH RESULTS

3.1. General information characteristics of the research subjects

Table 1. Some general characteristics of hypertension patients undergoing outpatient treatment at 20 commune health stations in Bat Xat district (n=510)

Characteristic		Number (n)	Rate (%)
Gender	Male	227	44.5
	Female	283	55.5
Age Group	< 40	10	2.0
	40 – 60	227	44.5
	61 – 75	218	42.7
	>75	55	10.8
Profession	Farmer	395	77.5
	Worker	2	0.4
	Civil servants	10	2.0
	Freelance workers	55	10.8
	Retirement	32	6.3
	Other	16	3.1
Health Insurance	Yes	502	98.4
	No	8	1.6

Comments: The majority of patients with hypertension treated at commune health stations were female, accounting for 55.5%, and 98% were aged 40 years and above. The majority of the study subjects were farmers (77.5%), followed by freelancers (10.8%), retirees (6.3%), and workers (0.4%). Most (98.4%) had health insurance.

Table 2. Some characteristics of hypertension in the study subjects (n=510)

Character		Number (n)	Rate (%)
Personal history before developing hypertension	Pre-hypertension	241	47.3
	Diabetes	2	0.4
	Obesity	27	5.3
	Cardiovascular disease	4	0.8
	Dyslipidemia	2	0.4

Character		Number (n)	Rate (%)
Duration of illness	< 1 year	241	47.3
	1 – 5 years	225	44.1
	>5 years	44	8.6
Co-existing chronic diseases	None	502	98.8
	1 chronic disease	6	1.2
	2 or more chronic diseases	0	0

Comments: There are 47.3% of hypertensive people with a history of pre-hypertension, but the percentage of people with a history of diabetes is 0.4%; the percentage of people with a history of obesity is 5.3% which is low. The duration of the disease for most study subjects was less than 5 years, with 91.4% of patients having a disease duration of less than 5 years, and only 1.2% of patients had chronic diseases.

3.2. Current Situation of Hypertension Management and Treatment at Commune Health Stations in Bat Xat District, Lao Cai Province in 2020

Table 3. Results of outpatient treatment of hypertension patients

Blood Pressure (BP) Grading	WHO Supported Station Group				Non-WHO Supported Stations Group				Total			
	Initial BP		Current BP		Initial BP		Current BP		Initial BP		Current BP	
	n	%	n	%	n	%	n	%	n	%	n	%
Target blood pressure (< 140/90 mmHg)	0	0	213	66.8	0	0	128	67%	0	0	341	66.9
Grade I	152	47.6	92	28.8	132	69.1	54	28.3	284	55.7	146	28.6
Grade II	162	50.8	13	4.1	57	29.8	8	4.2	219	42.9	21	4.1
Grade III	5	1.6	1	0.3	2	1.1	1	0.5	7	1.4	2	0.4
Sum	319	100	319	100	191	100	191	100	510	100	510	100

Comments: There were 66.8% of hypertension patients in the WHO-assisted station group who achieved the target blood pressure, and 66.9% in the WHO non-supported station group.

Table 4. Results of hypertension patient management and monitoring activities

Content \ WHO Supported Station Group	Yes		No	
	n	%	n	%
Patients are regularly monitored monthly	319	100	191	100
Follow-up appointments were kept as scheduled by the doctor	223	69.9	124	64.9
Doctors examine hypertension levels and monitor for drug side effects	319	100	191	100

Comments: Patients were regularly monitored monthly, and their hypertension levels were checked by doctors, who also monitored for drug side effects. In the WHO-supported station group, 69.9% of

patients kept their follow-up appointments, compared to 64.9% in the non-WHO-supported station group.

Table 5. Human resources to manage hypertension treatment at the Health Station

WHO Supported Station Group According to regulations	Yes		No	
	n	%	n	%
Has 01 Doctor or 01 Assistant Doctor	11	100	9	100
Has 01 intermediate-level nurse or higher	10	90.9	7	77.8
Staff responsible for examining and treating hypertension have relevant certificates	10	90.9	5	55.6

WHO Supported Station Group According to regulations	Yes		No	
	n	%	n	%
Medical staff managing hypertension have updated their knowledge on hypertension management in the past 2 years	11	100	9	100
Medical staff responsible for counseling have relevant hypertension counseling certificates	5	45.5	4	44.4
Total	11	100	9	100

Comments: There are sufficient doctors, assistant doctors, and one nurse in the WHO-supported station group. However, in non-WHO-supported stations, only 2 out of 9 (22.2%) had sufficient human resources.

Table 6. Information on equipment at health stations for hypertension management

Content	WHO Supported Station Group		Non-WHO Supported Stations Group	
	Yes	No	Yes	No
Stethoscope, blood pressure monitor	11	0	9	0
Ultrasound Machine	1	10	0	9
Electrocardiograph	2	9	9	0
Scale	11	0	9	0
Height measuring tape	11	0	9	0
Waist circumference measuring tape	11	0	9	0
Computers, televisions	11	0	9	0

Remarks: For equipment serving hypertension management and treatment, commune health stations in the district are fully equipped with items such as computers, blood pressure monitors, stethoscopes, and logs for non-communicable disease management. Functional rooms at the health stations are scientifically arranged for convenient hypertension management and treatment.

Table 7. On hypertension treatment drugs

According to regulations	WHO Supported Station Group		Non-WHO Supported Stations Group	
	Yes	No	Yes	No
Sufficient hypertension treatment drugs according to Circular 39/2017/TT-BYT	0	11	0	9
Only monotherapy drugs are used	11	0	9	0
Polytherapy drugs used	0	11	0	9

Comments: Basic hypertension treatment drugs met the requirements for hypertension management and treatment at the station.

Table 8. Activities on screening, consultancy, and management of hypertension patients

Content	WHO Supported Station Group		Not	
	Yes	No	Yes	No
People are screened for hypertension	5594	17.27	5440	13.98
Detection of hypertension through screening	464	8.29	586	10.77
People with hypertension are entitled to make medical records for outpatient treatment	332	71.6	197	33.6

Observe: The percentage of people screened for hypertension in both groups of stations with WHO support and without WHO support was 17.27% and 13.98%, respectively; The detection rate of hypertension through screening was 8.29% and 10.77%; Regarding hypertension patients, the rate of outpatient treatment for the WHO support station group reached 71.6% compared to 33.6% in the WHO support station group.

4. DISCUSSION

In Vietnam, hypertension prevention and control have been paid attention to by the Party and the Government as a national target program; the rate

of commune-level health stations preventing, managing, and treating several common non-communicable diseases is 95% [2], [3]. Prevention and control of hypertension are also included in the project on prevention and control of non-communicable diseases, as well as the project on prevention and control of several diseases that pose a threat to the community.

Regarding the results of management

Our study has revealed notable successes in managing hypertensive patients at the grassroots health level. Specifically, 100% of patients are monitored by the commune health station every month. Doctors examine 100% of patients to check for hypertension and monitor the side effects of their medications. These are very positive results, demonstrating the medical team's efforts and compliance with professional procedures in closely monitoring the health status of hypertensive patients. However, the study also noted essential limitations that need attention:

The rate of follow-up appointments kept on time was not high (68.0%); this figure indicates that a significant portion of patients did not adhere to their follow-up schedule, which could negatively affect the effectiveness of long-term hypertension treatment and management. Commune health stations did not report according to Circular 37/TT-BYT, despite the application of information technology in hypertension management and treatment. This is a significant shortcoming, hindering the overall monitoring and evaluation of hypertension management and the application of technology to improve work efficiency.

The rate of people screened for hypertension was not high, specifically 17.27% for WHO-supported commune health stations and 13.98% for non-WHO-supported stations. Overall, this figure indicates that hypertension screening in the community has not yet achieved the desired level of effectiveness. This poses a significant challenge in the early detection and management of hypertension, a leading risk factor for serious cardiovascular events. Synchronous and stronger solutions are needed to raise public awareness about the importance of regular screening and to increase access to healthcare services, especially at the grassroots level.

Regarding human resources and facilities

The study has shown a significant difference in human resources between commune health stations. Specifically, health stations supported by WHO have enough doctors and one nurse, ensuring the necessary human resources for healthcare. However, the situation is markedly different in health stations that are not supported

by WHO, when only 2 out of 9 stations (22.2%) have enough staff.

This disparity may be one of the main reasons for the difference in quality and operational efficiency between the two groups of health stations. The severe shortage of workforce in health stations without support from the WHO will directly affect people's access to health services, especially in the management and treatment of chronic diseases such as hypertension. This not only overloads the existing medical team but can also reduce the quality of services, affecting treatment outcomes and patient monitoring.

However, the management and treatment of hypertension at health stations in the district are supported to the maximum thanks to the adequate preparation of equipment, such as computers, blood pressure monitors, stethoscopes, and non-communicable disease management books. In addition, the scientific arrangement of functional departments also contributes to improving work efficiency.

A study by Nguyen Truong Duy Tung (2022) revealed that in 2022, the proportion of health stations in Vinh Long province that managed diabetes patients according to the requirements specified in Decision No. 3756/QĐ-BYT of the Ministry of Health was 53.3% [5]. A study by Bui Thi Minh Thai (2020) revealed that most health stations were capable of performing fewer than 25% of their technical services. Specifically, by region, Region 3 had a higher proportion of health stations performing less than 25% of technical services compared to Region 1 and Region 2 (61.23%). By area, 66.67% of health stations in urban areas performed less than 25% of technical services, higher than in suburban areas (47.84%) [6]. A study by Nguyen Thi Thi Tho (2023) stated that the proportion of commune health stations implementing prevention, screening, and management of hypertension is a key indicator of the health sector's performance. Among these, hypertension treatment management is the main criterion for this indicator. The research results showed that out of a total of 1,746 commune health stations surveyed, 88.6% of them performed hypertension treatment management at the commune health station. This rate is relatively high compared to the results synthesized from the hypertension statistical reporting system [7].

5. CONCLUSION

The rate of patients regularly monitored monthly at health stations reached 100%; the rate of keeping follow-up appointments on time with doctors was 68.0%. Additional human resources, training, and sufficient medication reserves are

needed to achieve high efficiency in management and treatment. Facilities, human resources, and basic medications met the requirements for hypertension management and treatment. However, there were still some difficulties in implementation, such as a lack of operational funding, inconsistencies in policy mechanisms and regulations on treatment drugs across different levels, and inadequate regulations on practice certificates. Additionally, the application of information technology in hypertension management and treatment was not synchronized across communes.

ACKNOWLEDGMENTS

The research team would like to thank the medical staff at 20 commune health stations in Bat Xat district, Lao Cai province, and the patients who participated in this study for providing survey data for this topic.

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