

CURRENT STATUS OF THE DISEASE PATTERN AND TRADITIONAL MEDICINE TREATMENT, TRADITIONAL MEDICINE - MODERN MEDICINE AT THE DEPARTMENT OF TRADITIONAL MEDICINE AND REHABILITATION, CAM KHE DISTRICT MEDICAL CENTER, PHU THO PROVINCE, PERIOD 2022–2024

Pham Anh Hung^{1*}, Tran Thi Hong Ngai²

¹Vietnam University of Traditional Medicine - 2 Tran Phu, Ha Dong Ward, Hanoi City, Vietnam

²Cam Khe District Health Center, Phu Tho Province -
No. 147 Hoa Khe Street, Cam Khe Town, Cam Khe Dist, Phu Tho Province, Vietnam

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ABSTRACT

Objective: To describe the disease pattern among patients receiving examination and treatment at the Department of Traditional Medicine, Cam Khe District Medical Center, during the period 2022–2024, and to assess the current situation of treatment using Traditional Medicine alone and in combination with Modern Medicine at the same department during this period.

Subjects and Methods: A retrospective cross-sectional study was conducted on all medical records of patients examined and treated at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, from January 1, 2022, to December 31, 2024. Data on demographic characteristics, ICD-10 diagnoses, Traditional Medicine diagnoses, and treatment methods were collected and analyzed using SPSS software version 20.0.

Results: The study population was predominantly female (60.9%), older adults (≥ 60 years old, 48.8%), and residents of Cam Khe district (>80%). The disease burden was mainly attributed to non-communicable diseases, with the two most common groups being Diseases of the musculoskeletal system and connective tissue (Chapter XIII, 81.6%) and Diseases of the nervous system (Chapter VI, 48.6%). The combined treatment approach using Traditional and Modern Medicine was the primary strategy, accounting for 59.3% of patients. Among Traditional Medicine interventions, acupressure massage (83.0%) and electroacupuncture (78.4%) were most frequently utilized. The overall treatment effectiveness (recovered and improved) reached approximately 90%.

Conclusion: The disease pattern at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, clearly reflects the burden of chronic musculoskeletal and neurological diseases in the elderly, consistent with the national epidemiological transition trend. The current treatment practice demonstrates that the integrative model of Traditional and Modern Medicine is being effectively applied, maximizing the advantages of non-pharmacological methods and affirming the vital role of Traditional Medicine at the primary healthcare level.

Keywords: Disease pattern; Traditional Medicine; Integrative Medicine; District-level healthcare; Cam Khe.

1. INTRODUCTION

Health is the most valuable asset of every citizen, and the protection and improvement of public health are primary responsibilities of society as a whole. In this context,

studying the disease pattern in a locality holds significant scientific and practical importance, as it directly reflects community health status and provides evidence for

*Corresponding author

Email: phamhungckpt1@gmail.com Phone: (+84) 982875115 DOI: 10.52163/yhc.v66i8.4053

effective policymaking and healthcare resource allocation.

In Vietnam, Traditional Medicine (TM), with a long-standing history, has played and continues to play an essential role in the national healthcare system. Cam Khe District Medical Center, Phu Tho Province, is a first-class district-level healthcare facility in which the Department of Traditional Medicine and Rehabilitation is one of the pioneering units in implementing the integrative model of Traditional Medicine and Modern Medicine. Evaluating the operational status of this department serves as practical evidence for the implementation of national health policies at the grassroots level.

However, to date, no comprehensive research has systematically investigated the disease pattern and treatment practices in this department. Therefore, we conducted the study entitled: "Current status of the disease pattern and treatment using Traditional Medicine and the integration of Traditional Medicine with Modern Medicine at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, Phu Tho Province, during the period 2022–2024."

With two objectives:

1. To describe the disease pattern among patients examined and treated at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, during 2022–2024.
2. To describe the current situation of treatment using Traditional Medicine alone and in combination with Modern Medicine at the department during the same period.

3. RESULTS

Table 1. Distribution of patients by sex

Sex	Year 2022 (n=2313)		Year 2023 (n=2713)		Year 2024 (n=2554)		Total (7580)		p_{1-2-3}
	n	%	n	%	n	%	n	%	
Male	935	40,4	1075	39,6	947	37,1	2957	39,1	<0,05
Female	1378	59,6	1638	60,4	1607	62,9	4623	60,9	<0,05
p	<0,05								

Comment: From the data in the table, it can be observed that female patients accounted for a higher proportion than male patients across all three years from 2022 to 2024. Specifically, the proportion of females was 59.6% in 2022, 60.4% in 2023, and 62.9% in 2024. The difference was statistically significant ($p < 0.05$).

Table 2. Distribution of patients by age group

Age group	Year 2022 (n=2313)		Year 2023 (n=2713)		Year 2024 (n=2554)	
	n	%	n	%	n	%
< 16 years	49	2,1	46	1,7	35	1,4
16 – 40 years	359	15,5	347	12,8	344	13,5
40 – 59 years	812	35,1	1017	37,5	867	33,9
≥ 60 years	1093	47,3	1303	48,0	1308	51,2

Age group	Year 2022 (n=2313)		Year 2023 (n=2713)		Year 2024 (n=2554)	
	n	%	n	%	n	%
X ± SD (Min - Max)	57,76 ± 17,65 (12 - 103)		58,50 ± 16,94 (9 - 105)		57,15 ± 16,59 (6 - 104)	
p	p > 0,05		p > 0,05		p > 0,05	

Comment: From the table, the mean age of patients was 57.76 ± 17.65 years in 2022, 58.50 ± 16.94 years in 2023, and 57.15 ± 16.59 years in 2024. Among age groups, patients aged ≥ 60 years consistently accounted for the highest proportion in all three years, with 47.3%, 48.0%, and 51.2%, respectively. The difference across the three years was not statistically significant ($p > 0.05$). In addition, during the period 2022–2024, the youngest patient was 6 years old in 2024, and the oldest was 105 years old in 2023.

Table 3. Disease prevalence at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, Phu Tho Province, during 2022–2024 by ICD-10 across 22 chapters

Disease category	Year 2022 (n=2313)		Year 2023 (n=2713)		Year 2024 (n=2554)		Total		p
	n	%	n	%	n	%	n	%	
I	0	0	0	0	0	0	0	0	> 0.05
II	0	0	0	0	0	0	0	0	> 0.05
III	0	0	0	0	0	0	0	0	> 0.05
IV	429	18,5	547	20,2	892	34,9	1868	24,6	> 0.05
V	0	0.0	0	0.0	0	0.0	0	0.0	> 0.05
VI	894	38,7	1294	47,7	1495	58,5	3683	48,6	> 0.05
VII	140	6,1	204	7,5	288	11,3	632	8,3	> 0.05
VIII	167	7,2	377	13,9	279	10,9	823	10,9	> 0.05
IX	93	4,0	199	7,3	291	11,4	583	7,7	> 0.05
X	49	2,1	84	3,1	288	11,3	421	5,6	> 0.05
XI	0	0	0	0	0	0	0	0	> 0.05
XII	293	12,7	431	15,9	289	11,3	1013	13,4	> 0.05
XIII	1781	77,0	2317	85,4	2088	81,8	6186	81,6	< 0,05
XIV	46	2,0	83	3,1	78	3,1	207	2,7	> 0.05
XV	0	0	0	0	0	0	0	0	> 0.05
XVI	0	0	0	0	0	0	0	0	> 0.05
XVII	0	0	0	0	0	0	0	0	> 0.05
XVII	0	0	0	0	0	0	0	0	> 0.05
XIX	0	0	0	0	0	0	0	0	> 0.05
XX	0	0	0	0	0	0	0	0	> 0.05
XXI	0	0	0	0	0	0	0	0	> 0.05
XXII	0	0	0	0	0	0	0	0	> 0.05

Comment: From the table, the disease prevalence at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, during 2022–2024, based on ICD-10, was mainly concentrated in Chapters IV, VI, VII, VIII, IX, X, XII, XIII, and XIV. Among these, Chapter XIII – Diseases of the musculoskeletal system and connective tissue – accounted for the highest proportion across all three years, with 81.6%. The difference was statistically significant ($p < 0.05$).

Table 4. Disease pattern categorized into three disease groups during the period 2022–2024

Disease group	Year 2022 (n=2313)		Year 2023 (n=2713)		Year 2024 (n=2554)	
	n	%	n	%	n	%
Communicable diseases	49	2,1%	84	3,1%	288	11,3%
Non-communicable diseases	2264	97,9%	2629	96,9%	2266	88,7%
Accidents and injuries	0	0	0	0	0	0
p	$p_{1;2} <0,05$		$p_{2;3} <0,05$		$p_{1;3} <0,05$	

Comment: From the table, the disease pattern categorized into three groups during the period 2022–2024 at the Department of Traditional Medicine was predominantly non-communicable diseases, accounting for 97.9% in 2022, 96.9% in 2023, and 88.7% in 2024. The difference was statistically significant ($p < 0.05$).

Table 5. Most prevalent inpatient conditions treated with Traditional Medicine during 2022–2024

Disease group	Disease category ICD - 10	Disease category "Traditional Medicine"	Year 2022 (n=2313)		Year 2023 (n=2713)		Year 2024 (n=2554)	
			n	%	n	%	n	%
Hạc tất phong	M17	U62.261	541	23,4	802	29,6	893	35,0
Yêu cước thống	M54.3	U62.391	941	40,7	1179	43,5	1171	45,8
Kiên thống	M53.1	U62.182	857	37,1	1189	43,8	1075	42,1
Huyễn vựng	I10	U58.091	498	21,5	616	22,7	679	26,6
Bán thân bất toại	G81	U55.011	171	7,4	283	10,4	279	10,9

Comment: From the table, the most prevalent inpatient condition treated with Traditional Medicine during 2022–2024 was Yêu cước thống (lumbar and leg pain), accounting for 45.8%, followed by Kiên thống (shoulder pain) at 42.1%, and Hạc tất phong (knee osteoarthritis) at 35.0%. Bán thân bất toại (hemiplegia) had the lowest prevalence at 10.9%.

Table 6. Traditional Medicine treatment methods used for inpatients and outpatients at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center

Treatment methods							
Year 2022 (n=2074)		Year 2023 (n=2384)		Year 2024 (n=2210)		Total (n=6668)	
n	%	n	%	n	%	n	%
Herbal steam therapy							
329	15,9	429	18,0	382	17,3	1140	17,1
Electroacupuncture							
1572	75,8	1928	80,9	1728	78,2	5228	78,4
Aqua-acupuncture							
1029	49,6	1682	70,6	1482	67,1	4193	62,9
Acupressure massage							
1709	82,4	2004	84,1	1819	82,3	5532	83,0
Traditional herbal medicine							
629	30,3	820	34,4	689	31,2	2138	32,1

Comment: From the table, the most frequently applied Traditional Medicine treatment methods for both inpatients and outpatients at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, during 2022–2024 were electroacupuncture (78.4%), acupressure massage (83.0%), and aqua-acupuncture (62.9%). Traditional herbal medicine accounted for 32.1%, and herbal steam therapy accounted for 17.1%. The difference was statistically significant ($p < 0.05$).

Table 7. Treatment modalities for inpatients and outpatients at the Department of Traditional Medicine and Rehabilitation

Treatment methods	Year 2022 (n=2313)		Year 2023 (n=2713)		Year 2024 (n=2554)		Total (n=7580)		p _{1,2,3}
	n	%	n	%	n	%	n	%	
Modern Medicine	239	10,3	329	12,1	344	13,5	912	12,0	> 0,05
Traditional Medicine	659	28,5	792	29,2	721	28,2	2172	28,7	> 0,05
Approach combining Traditional Medicine and Modern Medicine	1415	61,2	1592	58,7	1489	58,3	4496	59,3	> 0,05
p	< 0,05		< 0,05		< 0,05				
p _{1,2,3}	< 0,05								

Comment: From the table, among both inpatients and outpatients treated at the Department of Traditional Medicine and Rehabilitation, the integrative approach combining Traditional Medicine and Modern Medicine accounted for the highest proportion at 59.3% during the period 2022–2024, with 61.2% in 2022, 58.7% in 2023, and 58.7% in 2024. Treatment with Traditional Medicine alone accounted for 28.7%, while treatment with Modern Medicine alone accounted for 12.0%. The differences were statistically significant across all three years with p < 0.05.

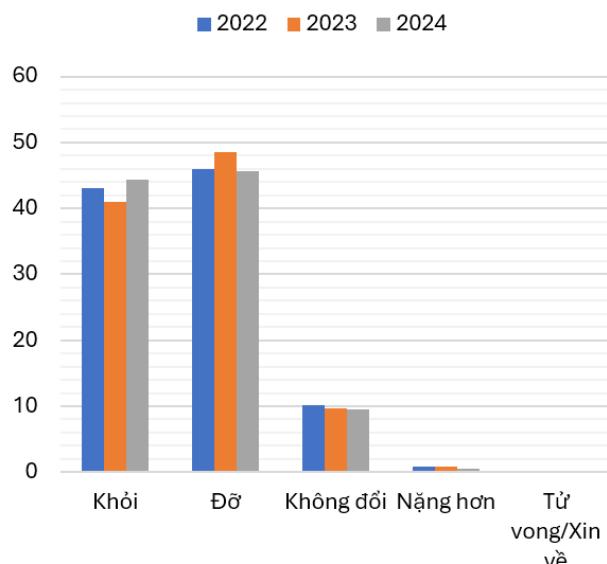


Figure 1. Treatment effectiveness for inpatients and outpatients during 2022–2024

Comment: From the figure, it can be observed that the proportions of patients who recovered or improved after treatment were highest and increased gradually over the years, reaching 89.0% in 2022, 89.6% in 2023, and 90.0% in 2024. The proportions of patients whose conditions worsened were low: 0.8%, 0.8%, and 0.5%, respectively. No cases of death or voluntary discharge against medical advice were recorded during 2022–2024. However, the differences across the three years were not statistically significant (p > 0.05).

4. DISCUSSION

4.1. Disease pattern

The findings of this study indicate that the disease pattern at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, clearly reflects two major national trends: population aging and the epidemiological transition. The patient population consisted mainly of older adults, females, and individuals with non-communicable diseases.

The predominance of musculoskeletal and neurological disorders is consistent with the demographic characteristics. It powerfully highlights the core strengths and indispensable role of Traditional Medicine in managing chronic pain and rehabilitation—areas where Modern Medicine continues to face limitations, particularly at the grassroots healthcare level.

This disease pattern is also consistent with reports from other provincial Traditional Medicine hospitals, such as Nguyen Xuan Thuy's study in Phu Tho, which confirms a standard disease model across the Traditional Medicine healthcare sector.

4.2. Treatment practice

The treatment situation at the Department demonstrates a practical, modern integrative healthcare model that is highly suitable for district-level medical facilities. The dominant use of combined Traditional and Modern Medicine treatment (59.3%) is an important finding, highlighting the successful implementation of national healthcare policies that promote integrative medicine. This approach allows optimization of treatment outcomes through synergistic therapeutic effects. It helps improve patient safety—particularly by reducing extensive use of Modern Medicine pharmaceutical agents such as NSAIDs, which are associated with more adverse effects.

The priority use of non-pharmacological Traditional Medicine methods, such as electroacupuncture (78.4%) and acupressure massage (83.0%), is appropriate and well-justified. These methods are effective, safe, low-cost, and covered by health insurance, making them an optimal choice for managing the pain and mobility

disorders that account for the majority of the disease burden in this department.

The high overall treatment success rate, with approximately 90% of patients recovering or improving, confirms the strong clinical capacity and effectiveness of the current therapeutic protocols.

5. CONCLUSION

5.1. Disease pattern at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, during the period 2022–2024

- The patient population predominantly consisted of females (62.9%), with more than 80% residing within Cam Khe District. The average age of patients was 57.76 ± 17.65 years in 2022, 58.50 ± 16.94 years in 2023, and 57.15 ± 16.59 years in 2024. Among them, patients aged ≥ 60 years accounted for the highest proportion across all three years, at 47.3%, 48.0%, and 51.2%, respectively. The differences between the three years were not statistically significant ($p > 0.05$).

- The disease pattern was mainly composed of non-communicable diseases, accounting for 97.9% in 2022, 96.9% in 2023, and 88.7% in 2024. According to the ICD-10 classification, cases were primarily distributed in chapters IV, VI, VII, VIII, IX, X, XII, XIII, and XIV. Among these, musculoskeletal and connective tissue diseases (Chapter XIII) were consistently the most prevalent group, accounting for 81.6% of cases over the three years. The difference was statistically significant ($p < 0.05$).

- The most common inpatient conditions treated with Traditional Medicine during 2022–2024 were low back pain (45.8%), shoulder-neck syndrome (42.1%), and knee osteoarthritis (35.0%), while hemiplegia accounted for the lowest proportion (10.9%).

5.2. Current status of Traditional Medicine (TM) treatment and integrated TM-conventional medicine at the Department of Traditional Medicine and Rehabilitation, Cam Khe District Medical Center, Phu Tho Province, in 2024

- The proportion of patients receiving integrated Traditional Medicine and Western Medicine (TM-WM) treatment was the highest, accounting for 59.3% during the period 2022–2024 (61.2% in 2022, 58.7% in 2023, and 58.7% in 2024). The proportions of patients treated exclusively with TM and with WM alone were 28.7% and 12%, respectively. The differences across the three years were statistically significant ($p < 0.05$).

- The most frequently applied TM modalities included electroacupuncture (78.4%), acupressure and therapeutic massage (83.0%), and aqua-acupuncture (62.9%) between 2022 and 2024. The use of traditional herbal medicines accounted for 32.1%, and herbal steam therapy 17.1%. The differences were statistically significant ($p < 0.05$).

- Treatment outcomes demonstrated that the proportion of patients who were cured or improved was the highest and showed a gradual increase over the years, reaching

89.0% in 2022, 89.6% in 2023, and 90.0% in 2024. The proportions of patients whose condition worsened were 0.8%, 0.8%, and 0.5%, respectively, and there were no deaths or discharges against medical advice during 2022–2024.

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