

EVALUATION OF DRUG USE MANAGEMENT AND COUNSELING AT CO LUNG HEALTH STATION – PHU LUONG – THAI NGUYEN

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ABSTRACT

This study evaluates the status of drug management and counseling activities of the health stations, as well as assess the professional capacity of commune health workers in order to improve the quality of medical examination and treatment at the health station, contributing to reducing the load for higher level hospitals. Furthermore, it helps to survey ongoing training needs for grassroots health care subjects. The study was conducted on the basis of collecting necessary information from patients who came to the health station for examination and treatment and the medical staff of the station. Research results show that the list of essential drugs has met the need for prescribing at the station, but most patients do not receive counseling on rational use of drugs, health workers have not been updated with knowledge in clinical pharmacy. The study also proposed a number of solutions to improve the quality of medical examination and treatment at health stations.

Key words: Management; consultancy; drug use; Co Lung health station; Phu Luong; Thai Nguyen

Received: 16/12/2019; Revised: 10/4/2020; Published: 11/4/2020

THỰC TRẠNG CÔNG TÁC QUẢN LÝ VÀ TƯ VẤN SỬ DỤNG THUỐC TẠI TRẠM Y TẾ XÃ CỔ LŨNG – PHÚ LƯƠNG – THÁI NGUYÊN

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TÓM TẮT

Nghiên cứu này khảo sát thực trạng hoạt động quản lý và tư vấn sử dụng thuốc của trạm y tế, đánh giá năng lực chuyên môn của các nhân viên y tế tuyến xã nhằm mục đích nâng cao chất lượng khám chữa bệnh tại tuyến y tế cơ sở, góp phần giảm tải cho các bệnh viện tuyến trên đồng thời giúp khảo sát nhu cầu đào tạo liên tục cho các đối tượng y tế tuyến cơ sở. Nghiên cứu được thực hiện trên cơ sở thu thập thông tin cần thiết từ các bệnh nhân đến khám, điều trị tại trạm y tế và các cán bộ y tế của trạm. Kết quả nghiên cứu cho thấy danh mục thuốc thiết yếu đã đáp ứng được nhu cầu kê đơn tại trạm nhưng phần lớn bệnh nhân không nhận được tư vấn sử dụng thuốc khi đến khám tại trạm, cán bộ y tế chưa được cập nhật kiến thức về dược lâm sàng. Nghiên cứu cũng đã đề xuất một số giải pháp để nâng cao chất lượng khám chữa bệnh tại trạm y tế.

Từ khóa: Công tác quản lý; tư vấn; sử dụng thuốc; trạm y tế xã Cổ Lũng; Phú Lương; Thái Nguyên

Ngày nhận bài: 16/12/2019; Ngày hoàn thiện: 10/4/2020; Ngày đăng: 11/4/2020

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DOI: <https://doi.org/10.34238/tnu-jst.2020.05.2427>

1. Introduction

Based on Resolution 20-NQ/ TW of the 6 plenum of the Central Conference XII and Decision 2348/ QD-TTg dated 5/12/2016 of the Prime Minister approving the project on building and developing the grassroots health network in the new situation [1], the Ministry of Health developed and issued the Action Program No. 1379/ CTr-BYT on December 19, 2017 [2], with the goal of improving the quality and efficiency of the grassroots health network across the country based on the principle of Family Medicine. In particular, mainly renovating the operation of the health station (CHS) based on the principle of family medicine, implementing and carrying out 6 major professional tasks, namely: Education communication, health promotion; set up and manage personal health records to gradually strive to achieve the goal that everyone is monitored, advised and examined at least once a year, targeting 90% of the population by 2020 and 100% of the population by 2025 under health management; manage and treat non- infectious diseases, firstly, blood pressure, diabetes, cardiovascular diseases at CHSs, health care for children and the elderly; population work; prevent disease, focus on the good implementation of immunization, implementation of projects and activities of the health target program; examination, screening and early detection of disease [3].

Currently, the number of patients coming to clinics is increasing day by day because services are provided to clinics. However, there have been studies showing that as the grassroots level closest to the population, most of the health stations are still unable to fulfill the functions of the grassroots level, most of them have only been able to do preventive medicine work. Activities of examination, monitoring, periodic dispensing, counseling on rational use of drugs for patients in most health stations have not been implemented in time [4]. Research by T. N. Truong has shown the lack of human resources

as well as some essential medicines at some commune health stations in Ba Vi district, Hanoi. In addition, commune health workers are not regularly updated with knowledge related to counseling and drug use [5].

Co Lung is a commune located in Phu Luong district - Thai Nguyen. Co Lung Health Station is located very close to the center of Thai Nguyen city. The number of patients visiting the clinic currently is not much compared to the population of the commune [6]. Up to now, there has not been any study to assess the situation of the level of satisfaction of the people when coming to the clinic, there has not been any study on the management and counseling on drug use here.

In order to improve the quality of medical examination and treatment at the grassroots level, contributing to reducing the burden on higher-level hospitals, conducting researches to evaluation of drug management and counseling of CHSs and assessing the professional capacity of the medical staff working at the health stations as well as the ongoing training needs survey. The results obtained from the study will propose solutions to improve the quality of training and pharmaceutical expertise at the grassroots level, while contributing to medical support to build more effective interventions. The implementation of rational use of counseling services will help serve patients better.

Therefore, we conducted the research project "Evaluation of drug use management and counseling at Co Lung Health Station - Phu Luong - Thai Nguyen", with two objectives:

1. *Review the status of drug management and counseling at the medical station of Co Lung - Phu Luong - Thai Nguyen commune.*
2. *Offering solutions to improve the effectiveness of medical examination and treatment and counseling on drug use at the health station.*

2. Methods

2.1. Research subjects

+ Patients came to the commune health station of Co Lung - Phu Luong - Thai Nguyen to have examination and treatment.

+ Secondary records were managed at the health station.

2.1.1. Criteria for selecting research subjects

+ All patients who came for medical examination and treatment at the commune health station agreed to participate in the study.

+ Secondary records were being managed at the commune health station.

2.1.2. Exclusion criteria

- The patient refused to participate in the interview.

- The patient was unable to communicate.

2.2. Location and study time

- Location: Co Lung Commune - Phu Luong - Thai Nguyen.

- Time: from July 2019 to September 2019

2.3. Research Methods

- Research design: cross-sectional research.

- Methods: Descriptive research with analysis.

- Sample size: convenient.

- Steps to proceed.

+ Investigate patients' prescriptions.

+ Interview with medical staff and patients who come to the clinic at Co Lung commune health station.

+ Data was collected according to a consistent study sample.

2.4. Research targets

- Age, gender, history of disease, history of medicine.

- Drugs were prescribed.

- Factors related to drug supply, prescription and counseling.

2.5. Technical data collection and processing

Using the method of medical statistics and processed by Microsoft Excel 2010 and SPSS 16.0 program.

2.6. Research ethics

We did this project in order to improve the quality of treatment for patients at the medical station, without other purposes. This topic was approved by the Ethics Council of Thai Nguyen University of Medicine and Pharmacy; Patients participating in the study were completely voluntary.

3. Results

3.1. Age, gender and occupational characteristics of patients

Table 1. Age and gender characteristics of patients participating in the study

Gender Age	Total		Male		Female		Total	
	n	%	n	%	n	%	n	%
< 10	45	38.7	28	63.6	17	36.4	45	100
10-19	7	6	5	71.4	2	28.6	7	100
0-19	52	44.4	33	64.7	19	35.3	52	100
20-39	13	11.1	4	30.8	9	69.2	13	100
40-59	35	29.9	10	28.6	25	71.4	35	100
≥ 60	17	14.6	5	29.4	12	70.6	17	100
Total	117	100	53	45.3	64	54.7	117	100

As seen in table 1, patients of the health clinic mainly were under the age of 20 (44.4%), of which children under 10 years old accounted for the majority (38.7%), patients aged 40-59 account for rate of 29.9%. Other ages account for a lower proportion. Both men and women were at risk, but the proportion of women (54.7%) was a bit higher than men (45.3%).

Table 2. Occupational characteristics of patients

Job	n	Ratio (%)
Pupil	49	41.9
Farmer	38	32.5
Worker	10	8.5
Officer	2	1.7
Trader	5	4.3
Other	13	11.1
Total	117	100

Table 2 shows the occupational characteristics of patients. The study result indicates that pupils accounted for the highest proportion (41.9%), followed by farmers (32.5%). This is entirely consistent with the results of the study on age (Table 1) above, in which children made up a large proportion of patients who came to the health clinic for examination and treatment.

3.2. Characteristics of disease history and medical history

Table 3. Characteristics of disease history and medical history

Medical history History of disease	Total		Enalapril		Troysar		Metformin		Do not use specific medicines	
	n	%	n	%	n	%	n	%	n	%
Hypertension	16	13.7	7	43.8	3	18.7	1	6.3	6	37.5
Diabetes	3	2.6	1	33.3	0	0	1	33.3	2	66.7
Heart	1	0.9	1	100	0	0	0	0	0	0
Dyslipidemia	15	12.8	2	13.3	1	6.7	1	6.7	15	100
The rest	91	70.3	0	0	0	0	0	0	0	0
Total	117	100								

It can be seen in table 3 that there were 16 patients (out of 117 patients) had a history of hypertension (13.7%), the proportion of patients with a history of diabetes was 2.6%, history of cardiovascular disease (0.9%), history of dyslipidemia (12.8%). It was noted that there were 6 patients (37.5%) having a history of hypertension but having not taken hypertension drugs; 2 over 3 patients with a history of diabetes had not taken diabetes medicines. 100% of patients with a history of dyslipidemia should not take the drug.

3.3. Patients' current disease and drug used characteristics

Table 4. Disease characteristics

Disease	n	Ratio (%)
Acute pharyngitis	30	25.7
Acute bronchitis	20	17.1
Acute tonsillitis	13	11.1
Respiratory tract infections	63	53.9
Hypertension	6	5.1
Gastrointestinal diseases	8	6.8
Musculoskeletal diseases	5	4.3
Skin diseases	10	8.5
Others	25	21.4
Total	117	100

The information in table 4 shows that there were many different diseases; however, the highest rate was respiratory infections (53.9%), followed with acute pharyngitis (25.7%), acute bronchitis (17.1%), acute tonsillitis (11.1%) and the remaining diseases accounted for a lower proportion.

Table 5. Drugs used for patients

Drug	n	Ratio per 117 patients (%)
Paracetamol	77	65.8
Amoxicilin	50	42.8
Methylprednisolon	31	26.5
Cefaleucin	25	21.3
Troysar	6	5.1
Others	26	22.2

From the table 5, we can see that the most prescribed medication was paracetamol (65.8%); the next was amoxicillin (42.8%) and methylprednisolon (26.5%). It is worth noting that 100% of prescriptions containing methylprednisolon were prescribed twice a day. This is completely inconsistent with the instructions for use of corticosteroids [7]. Other drugs accounted for a lower proportion.

Table 6. Characteristics of respiratory infections and drugs used

Disease \ Drug	Paracetamol		Amoxicillin		Methylprednisolon		Cephaleucin		Others	
	n	%	n	%	n	%	n	%	n	%
Acute pharyngitis (30)	18	60	24	80	1	3.3	3	10	0	0
Acute bronchitis (20)	14	70	6	30	13	65	12	60	4	20
Acute tonsillitis (13)	11	84.6	7	53.8	2	15.4	6	46.2	0	0
Respiratory tract infections (63)	43	68.3	37	58.8	16	25.4	21	33.3	4	6.3

Table 6 shows that paracetamol accounted for the highest proportion (68.3%) in the drugs prescribed to treat respiratory infections, followed by amoxicillin (58.8%), cephalucine accounted for 33.3%. Other drugs accounted for only a small percentage (6.3%).

Table 7. Characteristics of non-respiratory diseases and the drug used

Disease \ Drug	Paracetamol		Amoxicillin		Methylprednisolon		Cefaleucin		Troysar		Others	
	n	%	n	%	n	%	n	%	n	%	n	%
Hypertension (6)	0	0	0	0	0	0	0	0	6	100	1	16.7
Gastrointestinal diseases (8)	0	0	1	12.5	0	0	0	0	0	0	8	100
Musculoskeletal diseases (6)	6	100	0	0	1	16.7	0	0	0	0	6	100
Skin diseases (10)	5	50	5	50	6	60	2	0	0	0	3	30
Others (30)	23	76.7	7	23.3	8	26.7	4	13.3	0	0	4	13.3
Total (50)	34	68	13	26	15	30	6	12	6	12	22	44

The study about the characteristics of non-respiratory diseases and the drug used obtained the results presented in table 7 as follows:

- In the treatment of acute pharyngitis, the most prescribed antibiotic was amoxicillin (80%); paracetamol was also the prescribed drug (60%).
- In the treatment of acute bronchitis, the main antibiotic prescribed in this disease was cephalucine (60%), amoxicillin accounted for 30%.
- In the treatment of acute tonsillitis, the two antibiotics prescribed in this case accounted

for approximately the same rate, amoxicillin (53.8%), cephalucine (46.2%).

- 100% of hypertension patients prescribed Troysar.
- 100% of patients with musculoskeletal disease were prescribed paracetamol.
- In the drugs prescribed to treat non-respiratory diseases, paracetamol was still the most prescribed medicine, accounting for 68% of the total number of non-respiratory prescription, then methylprednisolone, accounting for 30%. The remaining drugs were prescribed at a lower rate.

3.4. Characteristics of drug use management and counseling

Table 8. *Features of drug use management and counseling*

Information about drug use management and counseling	n	Ratio per 117 patients (%)
Drug use counseling		
Yes	2	1.7
No	115	98.3
List of essential medicines	126	98.4
The number of prescriptions for which the list of essential drugs meets the demand of prescription.	117	100
The numbers of prescription which must be purchased from outside.	52	44.4
Drugs purchased outside insurance	n	Ratio per 71 patients (%)
Bo phe	17	23.9
Alphachymotripsin	17	23.9
Cough relief	14	19.7
Acemux	11	15.5
Corticoid	1	1.4
Chlopheniramin	3	4.2
Others	8	11.2
Total	71	100

The study results in table 8 show that:

- Most patients were not received drug use counseling (98.3%).
- Most of drugs purchased outside the insurance were OTC drugs (such as: alphachymotripsin, cough, expectorant (acemuc) and (bo phe) in prescriptions for treating respiratory bacterial infections. Other drugs accounted for only lower 1%.

4. Conclusions

We have some conclusions through this study:

- The age of patients who came to the health clinic for examination and treatment was mainly under the age of 20; the percentage of men and women varied according to different ages.
- Pupils were the subject accounting for the highest proportion (49%) of the patients. That means this group of patients was susceptible to diseases and was interested in being examined and treated at health facilities.
- A high proportion of patients with a history of hypertension (37.5%) and diabetes (66.7%) were not monitored and treated as outpatients.
- Patients who came for medical examination and treatment at the clinic were mainly those

suffering from acute respiratory infections (such as acute pharyngitis, acute bronchitis, acute tonsillitis) (53.9%).

- The most prescribed medicine at the health station was paracetamol (65.8% of patients), followed by amoxicillin (42.8% of patients), cephalucine (21.3% of patients), methylprednisolone (26.5% patient).
- 100% of prescriptions containing methylprednisolone were prescribed twice daily.
- 98.3% of patients did not receive drug use counseling.
- The list of essential medicines had met the prescribing needs of the station [8].

5. Recommendations

- Commune health workers need to attend training courses to update their expertise in medical treatment.
- Disseminate the importance of counseling on drug use to commune health workers in order to improve the effectiveness and limit side effects of drugs, and increase treatment compliance of patients.

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