

CHAPTER IV

DATA EXERCISE

4.1 Introduction

Since 1993 some guidelines for the use of essential drugs have been disseminated in Vietnam (Medecines Sans Frontieres,1994 ; MoH, 1993); these include the treatment guideline of diarrhea (CDD program,1993), and the treatment guideline of ARI (ARI program,1993). The Vietnamese Ministry of Health has issued treatment guidelines for 135 diseases. However, most doctors working at district hospitals did not use the existing guidelines in their prescribing (Chuc, N.T.K, 1995). There are many factors that may contribute to the lack of adherence to available guidelines.

This study proposes to explore the existing prescribing behavior of physicians in Bavi District Hospital. It diagnoses causes and motivating factors influencing prescribing behavior. An intervention will be developed to improve rational prescription of antibiotics by prescribers through face-to-face education and implementation of clinical guideline. And then the project will be evaluated and disseminated.

The first concern of this study is to measure current prescribing practices through quantitative method. The collection of data is done prospectively from the

prescription encounters at the out-patient ward and inter-commune polyclinics. The data also is collected from a KAP survey of prescribers. Another concern is to identify the causal motivations of prescribers for such prescribing practices through a qualitative approach. Focus group discussion will be used for the qualitative technique.

This data exercise consists of a KAP survey of prescribers, and a prescription encounter analysis in Bavi District Hospital implemented by researchers.

4.2 Objectives

The objective of this data exercise is to develop the researcher's skills on data collection techniques and to learn how to tackle obstacles, during the data collection process, that may arise while the original study is being conducted. The objectives of data exercise are :

- + To test out the data collection technique.
- + To develop the researcher's data management skills.

4.3 Methodology

- A KAP survey was conducted with prescribers of Bavi District Hospital.

Information to be collected from the KAP survey include :

- + Prescriber's knowledge of ARI treatment guidelines.

- + Perception and attitude of prescribers regarding the ARI treatment guideline
- + Practice of prescribers in guideline implementation.
- For measuring current practices, data was collected from the prescription encounter.

The data collection process is described in the proposal part (Please see data collection part)

4.4 Data Collection Method

4.4.1 Data Collection Technique

Collection of quantitative data from interviewing prescribers and analyzing prescription encounter.

- A KAP survey of prescribers in Bavi District Hospital (1 out-patient ward and 3 inter-commune polyclinics) was conducted in September 2000 by researcher. Total of 16 physicians working at the out-patient ward and inter-commune polyclinics were interviewed during 4 days. Information from interviews of prescribers were used to assess their knowledge and attitude on guideline for treatment of ARI.
- A prospective study was conducted in Bavi District Hospital for collection of prescription encounters in September 2000. The collection was implemented at 1 out-patient and 3 inter-commune polyclinics during 1 week by administrative nurse who working in there. Total of 30 encounters

were collected. Information from collected encounters were analyzed by researcher based on evaluation indicators and variables.

4.4.2 Instruments for Data Collection

Similar to the proposed study, two formats have used for data management.

+ Questionnaire for the KAP survey with a set of questions to assess knowledge of Bavi District Hospital physicians on the guideline for treatment of ARI, and a set of questions to assess their attitude regarding these guidelines.

+ Medical prescription encounter analysis form (encounter on medical prescription for the treatment of ARI cases).

4.5 Location and Profile of the Hospital

Ba vi District Hospital (BDH) located in the Dong Thai commune of Bavi District in Hatay province, Vietnam. It is about 50 km northwest of Hanoi. This hospital has 150 beds. The administrative structure of this hospital is divided into 3 divisions and 10 departments that include 1 out-patient ward and 3 inter-commune polyclinics. It services patients in Bavi District. Currently, this hospital has 181 health personnel providing curative, preventive, promotive and rehabilitative health services for 240,000 people in 31 communes and 1 town. In addition, the hospital also has official responsibility for overall supervision and technical operation of health center activities and the public health program in the district where the hospital is located.

Bavi is still a poor district, that reflects similar morbidity and mortality patterns as Vietnam. Hence, the disease profile is dominated by diseases such as ARI, diarrhea, tuberculosis and malaria.

4.6 Pre-field activities

Before conducting data collection at Bavi District Hospital, a draft study design was prepared and discussed with the researcher's adviser. The survey questionnaire and guideline for medical prescription encounter analysis were prepared.

The researcher discussed planning data collection for the data exercise with the director of Bavi District Hospital and the director of ARI program.

4.7 Sample size

- Data of 30 medical prescription encounters diagnosed as ARI in children under five years old were collected from the out-patient and 3 inter-commune polyclinics in September 2000. The first, the researcher took all prescriptions which were diagnosed as ARI in children under five in one week from the 4 out-patient wards. From the total of 60 cases, the researcher randomly chose 30 prescriptions for this data exercise.

- All 16 physicians who are working in the out-patient ward and 3 inter-commune polyclinics were interviewed.

4.8 Findings and discussions

4.8.1 Findings

The findings were collected according to indicators. These indicators include

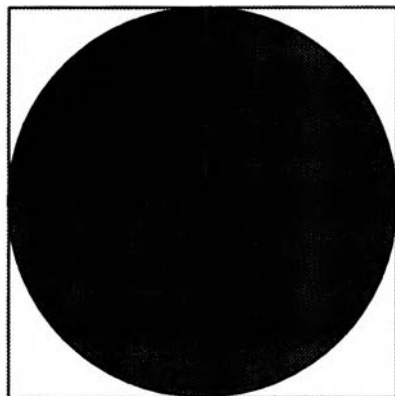
- Indicators of knowledge (KAP survey)
- Indicators of attitude (KAP survey)
- Indicators of practice (encounter analysis)Use of antibiotics

1. Indicators of knowledge (answers to questions on ARI treatment according to guidelines)

Questions	Answers	Right answers		Wrong answers		Total of physicians
		No of physicians	%	No of physicians	%	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Assessment 1. If a 2 year old child has cough or difficult breathing, what danger signs do you check for?	Not able to drink	16	100	0	0	16
	Convulsions	16	100	0	0	16
	Abnormally sleepy or difficult to wake	12	75	4	25	16
	Stridor in calm child	15	93.7	1	6.3	16
	Severe malnutrition	6	37.5	10	62.5	16
2.If a 1 year old child has cough, what key sign do you use to classify pneumonia?	.Fast breathing .Others (specify)	4	25	12	75	16
3.If a 1 year old child has cough, what key sign do you use to classify severe pneumonia?	.Chest indrawing .Others (specify)	10	62.5	6	37.5	16
4.In a 1 year old child, where and when do you look for chest indrawing?	.In the lower chest wall .When the child breathes IN .Others (specify)	14	87.5	2	12.5	16
Classification 5. What kinds of classification do you use for a child with ARI?	.No pneumonia (cough and cold)	16	100	0	0	16
	.Pneumonia	16	100	0	0	16
	.Severe pneumonia or very severe disease	15	93.7	1	6.3	16
	.Others (specify)	2	12.5	14	87.5	16

(1)	(2)	(3)	(4)	(5)	(6)	(7)
6.If a 7 month old child, How many breathing rate per minute is fast breathing?	.50/min or more .Others (specify)	16	100	0	0	16
7.How would you classify this 14 month old child? He has been coughing for 3 days with fever. He has a breathing rate of 56 per minute and chest indrawing. He has no other symptoms or signs	.Severe pneumonia .Others (specify)	16	100	0	0	16
Treatment 8.What kind of antibiotics do you use for a 14 month old child with pneumonia?	.Amoxycyclin or .Cotrimoxazole .Others (specify)	12 9	75 56.25	4 7	25 43.75	16 16
9.How would you treat for a 8 month old child with cough or cold	.Cough Remedy and home care .Others (specify)	3	18.75	13	81.25	16
10.A 2 year old child with pneumonia, treated with an antibiotic at home, is brought back after two days for reassessment. She is neither improving nor getting worse. What would you do?	.Change antibiotic .Refer to hospital if change antibiotic is not possible	11 7	68.75 43.75	5 9	31.25 56.25	16 16
Counseling 11.For what reasons would you advise the mother of a 3 year old child with a simple cough to come back to the health facility without delay?	.Breathing becomes difficult .Breathing becomes fast .Child not able to drink .Child becomes sicker	16 7 16 5	100 43.75 100 31.25	0 9 0 11	0 56.25 0 68.75	16 16 16 16

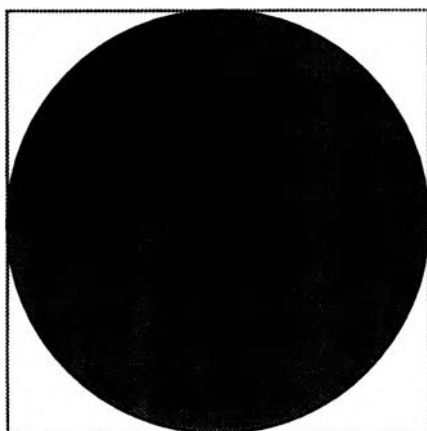
(1)	(2)	(3)	(4)	(5)	(6)	(7)
12. What advise on home care would you give to the mother of a 6 week old child with cough or cold, no pneumonia?	.Keep young infant warm	16	100	0	0	16
	.Breast feed frequently	16	100	0	0	16
	.Clear nose	16	100	0	0	16
	.Return if breathing becomes fast	15	93.75	1	6.25	16
	.Return if feeding becomes a problem	13	81.25	3	18.75	16
	.Return if child becomes sicker	12	75	4	25	16
Total	29	348	75%	116	25%	



right answer
 wrong answer

2. Indicators of attitude

	n	%
Full agreement with ARI treatment guidelines	12	(72.7)
Partial agreement with ARI treatment guidelines	4	(27.3)
No agreement with ARI treatment guidelines	0	(0.0)
Total	16	(100.0)



Full agreemnt
 Partial agreement
 No agreement

3. Indicators of practice

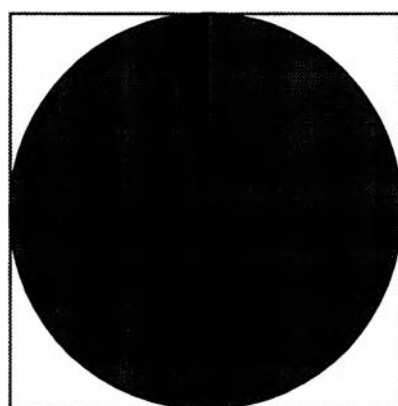
Indicators of practice (encounter analysis) include:

Use of antibiotics;

3.1. Indicators related to use of antibiotics

3.1. 1. Percentage of encounters having antibiotics

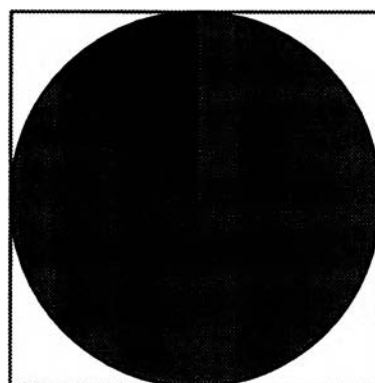
	n	%
Number of encounters having antibiotics	29	(96.7)
Number of encounters not having antibiotics	1	(3.3)
Total	30	(100.0)



■ Having antibiotics
■ Not having antibiotics

3.1.2. Percentage antibiotic encounters having more than 2 antibiotics per antibiotic encounter

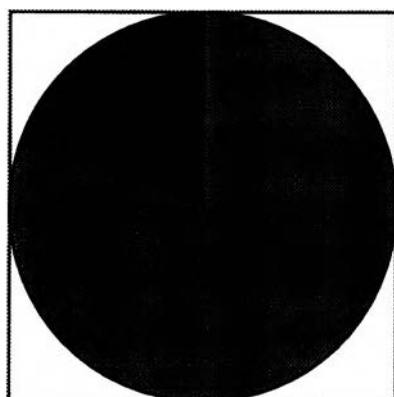
	n	%
Number of encounters having 1 antibiotic	25	(86.2)
Number of encounters having 2 antibiotics or more	4	(13.8)
Total	29	(100.0)



■ 1 antibiotic
■ 2 antibiotics

3.1.3 Percentage of antibiotic encounters prescribing antibiotics recommended by guidelines

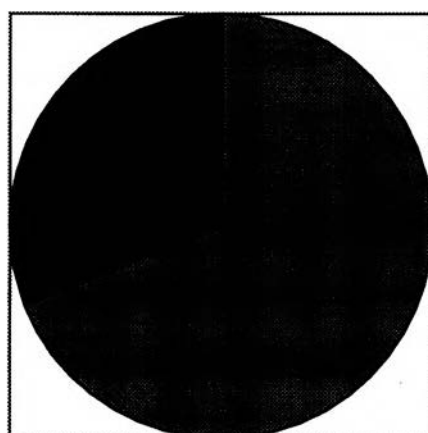
	n	%
Number of encounters with antibiotics recommended by guidelines	23	(79.3)
Number of encounters with antibiotics not recommended by guidelines	6	(20.7)
Total	29	(100.0)



■ Antibiotic recommended
 ■ Antibiotic not recommended

3.1.4. Percentage of antibiotic encounters with right indication

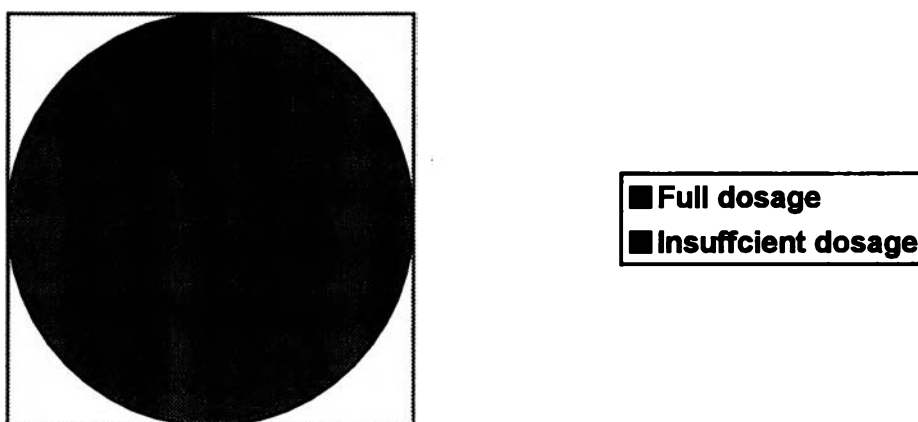
	n	%
Right indication	20	(69.0)
Wrong indication	9	(31.0)
Total	29	(100.0)



■ Right Indication
 ■ Wrong indication

3.1.6. Percentage of antibiotic encounters with full dosage

	n	%
Full dosage	26	(89.7)
Insufficient dosage	3	(10.3)
Total	29	(100.0)



4.8.2 Discussions

The researcher interviewed 16 prescribers who are working at the out-patient ward and 3 inter-commune polyclinics of Bavi District Hospital and who are medical doctors. During the same time, the researcher collected and analyzed 30 prescribing encounters from the out-patient ward and 3 inter-commune polyclinics of Bavi District Hospital.

The results from prescriber interviews and prescribing encounter analysis show that :

- About knowledge :

25 percent of the prescribers answered questions on ARI treatment according to the guideline wrongly. Especially in the part treatment there are many physicians answer false.

- About attitude :

100 percent of the prescribers agree with the ARI treatment guideline, but 27.3 percent agree partly with the treatment guideline, and only 72.7 percent agree fully with the treatment guideline.

- About use of antibiotics :

Almost all prescription encounters have antibiotics (96.7 %); 13.8 percent of encounters having 2 antibiotics or more. The number of encounters with antibiotics recommended by the guideline are 80 percent, especially 31.0 percent of antibiotic encounters with wrong indication (the use of antibiotics with incorrect administration or the inappropriate use of antibiotics with diagnosis, e.g.). 10.3 percent of encounters used antibiotic insufficient dosage.

All results mentioned above show that irrational use of antibiotics of prescribers in children under five with ARI in Bavi District Hospital is a problem that needs to be solved. One FGD should be conducted to find out factors influencing prescribing behavior of prescribers in Bavi District Hospital.

4.9 Lessons learned

The main aim of the data exercises is to develop the researcher's skill during the data collection process. Some lessons were learned from the data exercise process as follow :

- It is important that the instruments for data collection are well prepared . It helps to collect enough information for analysis and discussion.
- Discussion with the director of Bavi District Hospital about planning the study needed to be carried out before collecting data. This creates good collaboration between the researcher and personnel in the study location.
- The average of number of prescribing encounters collected were 3 per day for each ward. Therefore, during 2 months the researcher collected enough prescribing encounters for the original study.
- The prescribing encounters were written in an abridged manner, so sometimes it was difficult to understand the content of the prescribing encounter.

- Communication between the researcher and prescribers is an advantage. It should be conducted in the afternoon because in the morning the patient load at the hospital is usually very high.

4.10 Limitations

- There were time constraints on the prescriber to help and communicate with the researcher as he went to hospital in the morning when the patient load at the hospital is usually high.
- Some prescribing encounters were written with not enough information, so those were difficult to analyze.
- The results of data exercise have little validity; it is only to help the researcher improve data skills management.
- This data exercise used only quantitative method , but the original study used the both quantitative and qualitative methods.