

# Knowledge and Understanding of Patients to Special Instructions on Drug Zip Bags

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**Background and objectives:** Department of Pharmacy Service, Srinagarind Hospital has provided 19 types of drug zip bag with different instructions so that the patients can read and understand the instruction for drug use by themselves. This study was aimed to explore the knowledge and understanding of patients about special instructions on drug zip bags.

**Method:** This study was a prospective descriptive study performed in patients who underwent outpatient pharmacy service at Srinagarind Hospital during 15 August to 15 September 2012. Structural questionnaires were used data were analyzed using descriptive statistics and presented in terms of frequency and percentage.

**Result:** There were 400 patients recruited into this study. The respondents were both males (36.2%) and females (63.8%). Before drug use, most of patients (88.0%) read either labels about instruction for use or special instructions on the drug zip bags but 12.0% of patients read only the labels. Most of patients (84.3%) knew that Srinagarind Hospital had many types of drug zip bags

and 86.0% of patients knew that different drug zip bags contained different instructions. In part of drug use, 95.3% of patients always read and 95.5% of patients always followed special instructions on the drug zip bags. In part of knowledge and understanding, data were analyzed with nine types of drug zip bags. Correct answer about how to take medicine were mostly (96.2%) found in patients with label "Take it before bedtime" and correct answer about special instruction were mostly found (25.0%) in patients with drug zip bag P10 (Antithrombotic drug). In part of other recommendation, patients suggested that the drug zip bags should provide informations about indication (52.1%), side effect (18.4%) and expiration date (17.6%).

**Conclusion:** Most patients read the label and special instructions on the drug zip bags and understood how to use drug properly. However, they lack of understanding about detail in special instructions. Most patients were still need more information particularly about the indication of drug.

**Keyword:** Knowledge, Understanding, Special instruction, Drug Zip Bags

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## Introduction

Special instructions are messages about important recommendations or precautions necessary for patients to increase both efficiency and safety of drug use. These messages may focus on indication, specific

instruction, storage condition and common side effect. These instructions must be provided to patients by pharmacists in accordance with the drug laws, professional ethics and hospital accreditation standards.<sup>1-2</sup> Special instructions may be provided to patients in various forms



depend on each hospital such as screened message on drug zip bag or printed sticker for sticking on drug zip bag. Furthermore, some hospital used picture to help those patients who had trouble in reading<sup>3</sup>. At Srinagarind Hospital, special instructions were screened message on drug zip bags so that 19 types of drug zip bags were used. The benefit of many types of drug zip bags was not well established but there were many disadvantages such as difficulties in management, delays in dispensing especially in the process of choosing appropriate drug zip bags for each medication. Therefore, this study was conducted to explore the knowledge and understanding of patients to special instructions provided by outpatient pharmacy service, Srinagarind Hospital. The output may be used for developing the appropriate provision of special instructions which are useful and accepted by the patients.

### Method

This study was a prospective descriptive study performed in patients who underwent outpatient pharmacy service at Srinagarind Hospital during 15 August to 15 September 2012. Sample size was calculated using Krejcie and Morgan equation<sup>4</sup> as the following formula

$$n = \frac{\chi^2 N p (1 - p)}{e^2 (N - 1) + \chi^2 p (1 - p)}$$

Where  $e = 0.05$ ,  $c^2 = 3.841$ ,  $p = 0.05$  and  $N = 66,000$ , calculated “n” would be equal to 382 patients. Structural questionnaires were used for data collections, then data were analyzed using descriptive statistics and presented in the terms of frequency and percentage. This study was approved by the Ethic Committee in Human Research, KhonKaen University (HE551211)

### Results

There were 400 patients recruited into the study. The respondents were both males (36.2%) and female (63.8%)(Table 1). From Table 2, most of patients (88.0%) read either labels about instruction for use or special instructions on the drug zip bags but 12.0% of patients read only the labels before drug use. Most of patients (84.3%) knew that Srinagarind Hospital had many types of drug zip bags and 86.0% of patients knew that different drug zip bags contained different instructions. There were 95.3% of patients, always read information before drug use and 95.5% of patients followed special instructions on drug zip bags. For knowledge assessment, most of patients selected drug zip bag type P03 followed by P07 and P01, respectively (Table 1). Six types of drug zip bags were used to assess about how to take medicine and found that correct answer was mostly found with instruction for use with drug zip bag type P06 or “Take it before bed time” (96.2%). (Figure 1) Data analysis on knowledge and understanding of patients with nine types of drug zip bags was shown in Figure 2. Correct answer from patients about special instruction was mostly found with drug zip bag P10 (25.0%). Patients gave some suggestions on drug zip bags that they should provide more informations such as indication, side effect and expiration date which accounted for 52.1%, 18.4% and 17.6% of patients, respectively.

### Discussions

Although, many types of drug zip bags with different special instructions may be helpful for patients to increase the quality of drug use, some patients still lacked of comprehensive knowledge about the details so that they could not follow either instruction for use or special instruction. Therefore, the provision of special instruction should be modified such as they must be concise, clear and prominent. In addition, pharmacists

**Table 1** Patients' characteristics and selection for knowledge assessment

Data		Frequency (%)
Gender	Male	145 (36.2)
	Female	255 (63.8)
Age	18- 25 yr	40 (10.0)
	26 – 35 yr	65 (16.2)
	36– 45 yr	105 (26.3)
	46 – 55 yr	113 (28.3)
	56 – 65 yr	48 (12.0)
	> 65 yr	29 (7.2)
Selected drug zip bag		
	P01 Before meal 30 min	59 (14.7)
	P02 Before meal 1 h	44 (11.0)
	P03 Immediately after meal	
	P04 Chemotherapeutic agents	-
	P05 Do not take with milk or antacid	28 (7.0)
	P06 At bed time	26 (6.5)
	P07 May cause drowsiness	66 (16.5)
	P08 As need for relieving symptom	41 (10.3)
	P09 Sublingual tablet	-
	P10 Warfarin	16 (4.0)
	P11 Digoxin	15 (3.8)
	P12 Type 2 narcotic drugs	-
	P13 Eye ointment	-
	P14 Eye drop	-
	P15 Ear drop	-
	P16 Rectal suppository	-
	P17 Vaginal suppository	-
	P18 Topical agents	-
	P19 Blank	-

**Table 2.** Experience of patients about drug zip bags

Detail of experience	Frequency (%)
1. Reading the information on drug zip bag	
Only instruction for use	48 (12.0)
Both instruction for use and special instruction	352 (88.0)
2. Doing at the time of drug use	
Always read the information before drug use	381 (95.3)
Always follow the special instruction	382 (95.5)

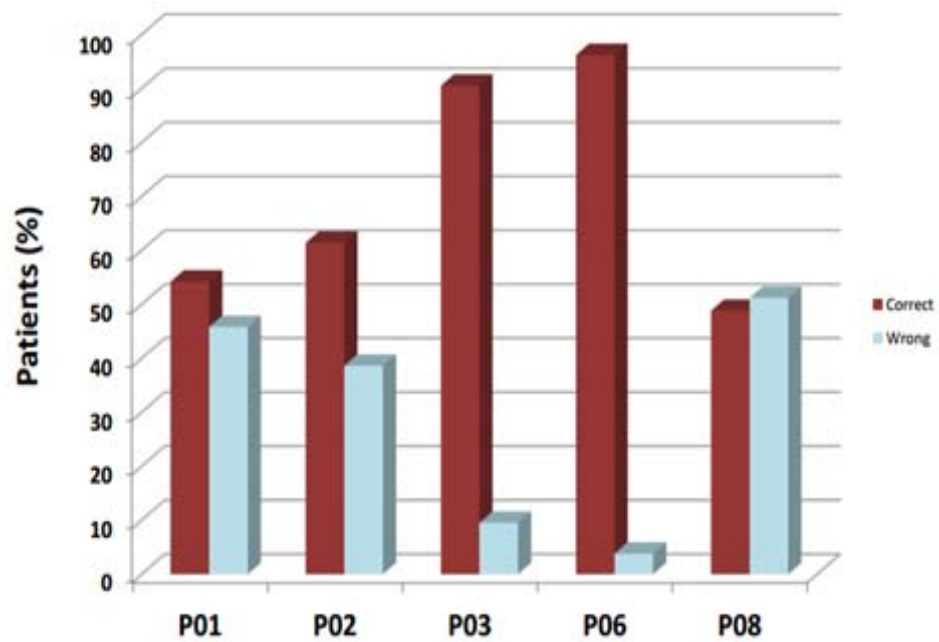


Figure 1 Patients' knowledge and understanding of how to take medicine

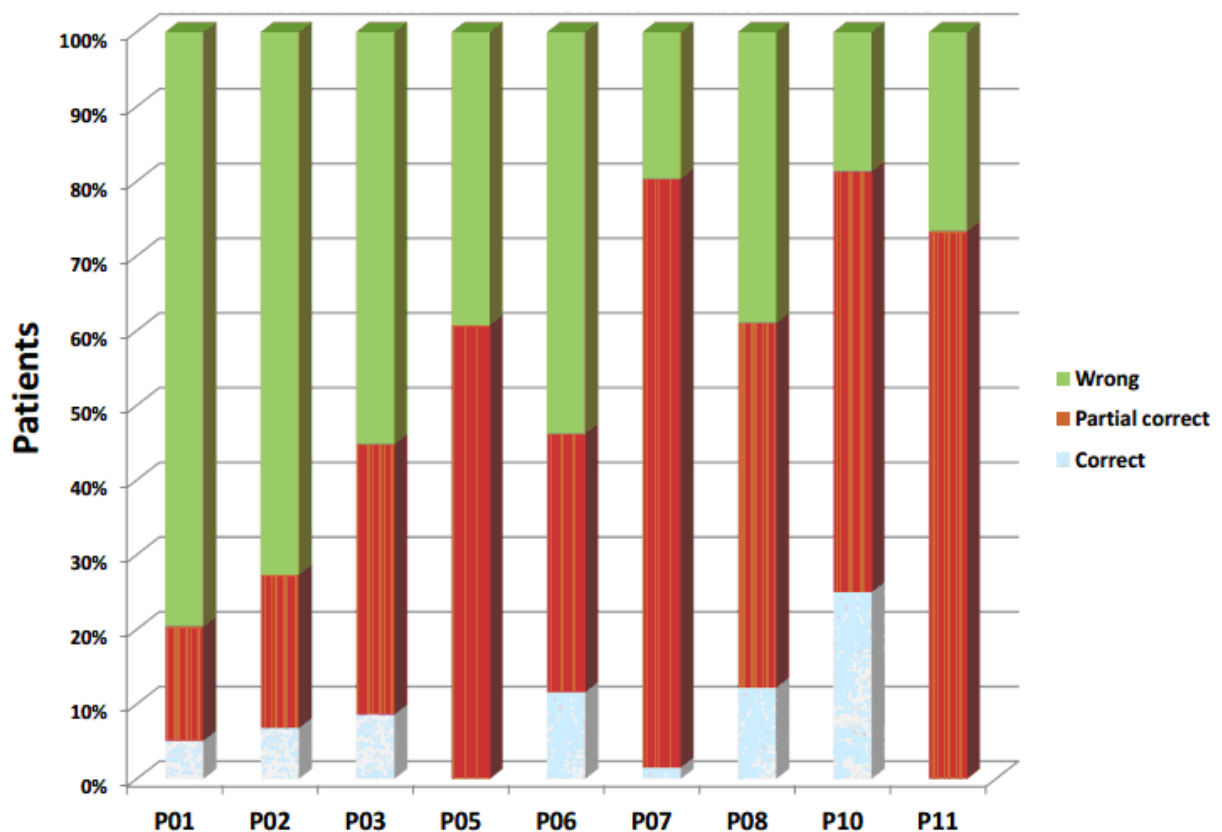


Figure 2 Patient's knowledge and understanding to special instructions



must advice and give counseling to all patients to ensure that patients obtained most benefit from the drug utilization<sup>5</sup>.

### Conclusions

Most patients read the label and special instructions on the drug zip bags and understood how to use drug properly. However, they lack of understanding about detail in special instructions. Most patients were still need more informations particularly information about indication of drug.

### Reference

1. The Pharmacy Council of Thailand. Standard criteria for pharmacy practitioners 2011. Bangkok: The Pharmacy Council of Thailand, 2011.
2. The Healthcare Accreditation Institute (Public Organization). Patient Safety : Concept and practice. Nonthaburi : Design company, 2003.
3. Nilaward K, Samerkum K, Kanman K, Deethae W. Effect of Pictorial Auxiliary Labels on Patients' Recall of Medication Use Information. Srinakharinwirot Journal of Pharmaceutical Sciences 2005;10:162-8.
4. Krejcie RV, Morgan DW. Determining sample size for research activities. Educational and Psychological Measurement 1970;30:607-10.
5. Chalongsuk R, Kapol N. Communication as Support in the Effectiveness of Drug Use in the Elderly. Thai Journal of Pharmacy 2011; 6: 55-68.