

### Abstract

The National Health Insurance program was aimed to improve the public's access to health quality services. Health is a fundamental requirement for every human. As stipulated in regulations No. 24 of 2011, the National Health Insurance (JKN) is hosted by the Health BPJS. The government has to guarantee the availability of drugs for the participants of JKN in the National Formulary 2013 as an important element of health. But it is undeniable that the drugs which not listed in the National Formulary are still being prescribed. This study was conducted to determine the average number of drugs on National Health Insurance patients' prescription and to determine the percentage of National Formulary drugs at pharmacies in Yogyakarta from September 2014 until February 2015 as an illustration of implementation JKN patient's prescriptions.

This study is a retrospective descriptive study. It was analyzed by calculating the average number of drugs per prescription and calculating the percentage of National Formulary 2013 drugs per JKN patient's prescription. The results showed that the average number of drugs National Health Insurance (JKN) patient's prescription at pharmacies in Yogyakarta period September 2014 - February 2015 was 2.8 drug/sheets. While the percentage of National Formulary 2013 drug per patient's prescription at pharmacies in Yogyakarta between September 2014 and February 2015 was 87.33%. Based on these results we can conclude that prescribing drugs of the National Health Insurance (JKN) patients at pharmacies in Yogyakarta is quite well implemented, although it does not reach 100% of the drugs listed in the National Formulary (FORNAS) 2013.

**Keyword:** Prescription, National Health Insurance (JKN), Pharmacy

### INTRODUCTION

The purpose of National Health Insurance is purpose to ease the society in accessing the best standard of health service. Especially for National Health Insurance (JKN), it will be held by Health insurance of BPJS which will be started on January 1st 2014. Government has guarantee the availability of drugs for all JKN members in National Formulary (FORNAS) 2013 and can be measurement of the implementation of JKN. The drugs list on FORNAS are included drugs which are in group and will be paid by BPJS health insurance as the executor unit of JKN. Doctor as important point must prescribe all drugs which are in the list of the national formulary 2013. But it can not be denied that drugs from the outside of FORNAS 2013 which are prescribed by doctors with provision that the drugs are already proper with medical indication and medical serve standard.

According to the result, there has been an analysis for knowing the implementation of JKN patients' drug prescription in some pharmacies of Yogyakarta city by counting the average amount on JKN patient's prescribe and medicines percentage which are in FORNAS 2013.

### RESEARCH METHODOLOGY

#### 1. Research Design

This analysis is retrospective descriptive. The object is the prescription of JKN's patient in Yogyakarta city's pharmacies September 2014 until February 2015.

#### 2. Research population

The population of research is JKN's patient prescription in Yogyakarta city's pharmacies which is collaborated with BPJS' Health unit as health facility counterpart.

#### 3. Research Sample

There are 600 prescription sheets as the sample. It based on WHO's rule in *How To Investigate Drug Use In Health Facilities* said at least there are 600 prescription sheets if possible. It used *Quota Sampling* technique to take the number of sample in each pharmacy. It also used *Systematic random sampling* to take the next sample.

### RESULT AND DISCUSSION

#### 1. Research Subject Description

This research is aimed to get the information of the drugs prescription implementation of JKN's patient in Yogyakarta city's pharmacies in September 2014 - February 2015, has it been appropriate with Health Ministry rules no.28 about Implementation Standard Program of JKN which mention that drug service in JKN is pointed to the list of drugs in The National Formulary (FORNAS). There are 22075 prescriptions which are taken from JKN's patients during September 2014 - February 2015 and the sample on this research are taken based on WHO's certainty.

#### 2. Implementation of Drug Prescription

##### 1. Average amount of Drug per Patient's Prescription Sheet

The average drug prescription per sheet is used for observing the tendency of polypharmacy to happen. Generally, polypharmacy is the utilizing of some drugs concurrently. It means that there are too much drugs are used or there are too much variant of drugs which are not useful or frequency of drugs used more than usually. According to above data, the calculation on the average indicator of drugs which are in patients' prescription sheet is this way:

$$\frac{A}{B} = \frac{1665}{600} = 2,8 \text{ drugs / sheet B } 600$$

Note : A = The amount of all drugs prescribed  
 B = The amount of prescription sheet as sample

According to WHO, it can be a good prescription if the average amount of drug prescription per sheet has grade at 1.8 - 2.2. Based on the above calculation, the average amount of drugs which prescribed by doctor to every patient is 2.8 drugs. Even though it is higher than WHO's estimation, it did not indicate polypharmacy yet. Having some drug treatments from more than one doctor concurrently can be a cause of polypharmacy.

The distribution amount of drugs in a patient's prescription can be seen on the following table :

**Table I. Distribution Amount of Drug of JKN's Patients Prescription per Sheet in Yogyakarta City's Pharmacy in September 2014 - February 2015**

No.	Amount Drug per Prescription Sheet	Amount of Prescription Sheet
1	1	90
2	2	161
3	3	212
4	4	91
5	5	29
6	6	13
7	7	3
8	8	0
9	9	1
<b>Total</b>		<b>600</b>

Table 1 shows the higher number of drugs on prescription per sheet is nine medicines. The higher prescription was in pharmacy 1 in 10th November 2014. They are Bisacor 2.5 mg; Valsartan 80 mg; Farsorbit 8 mg; Simvastatin 10 mg; Mini Aspilet 80 mg; Furosemid; Aspar K; Novomix dan Eclid 80 mg. Based on those drugs, it can be seen that the patient is suffering from diabetes mellitus with hyperlipidemia. This type of patient is possible to get multdrug in his prescription sheet and it can cause drug interaction. Sometimes drug interaction does not happen but people must be aware of the body and psychological condition of patient because the use of multdrug can cause non adherence patient especially geriatric patients.

#### 2. Drug Percentage of JKN's Patients on The National Formulary 2013 Prescription per Sheet

Drug Percentage on The National Formulary 2013 is used for observing how much drugs in JKN's patient prescription per sheet which include in FORNAS and for observing the other drugs from the outside of FORNAS which are in patient's prescription sheet. The drug percentage calculation of FORNAS is applied by comparing the amount of drug in FORNAS which is prescribed with the amount of all drug which prescribed.

**Table II. Drug Amount on The National Formulary 2013 of JKN's Patient Prescription per Sheet in Yogyakarta City's Pharmacy in September 2014 - February 2015**

No.	Pharmacy	Drug Prescribing	Drug on FORNAS	Drug Non FORNAS
1	Pharmacy I	539	513	26
2	Pharmacy II	500	482	18
3	Pharmacy III	452	302	150
4	Pharmacy IV	175	158	17
<b>Total</b>		<b>1666</b>	<b>1455</b>	<b>211</b>

Based on the above table, the percentage of drug on National Formulary (FORNAS) can be calculated by :

$$X = \frac{\text{Amount Drug on FORNAS}}{\text{Amount Drug Prescribing}} \times 100\%$$

$$X = \frac{1455}{1666} \times 100\% = 87,33\%$$

Those calculation shows the percentage of FORNAS drug prescription is 87.33%. The result shows that the drug prescription of JKN's patient did not implemented very well yet because it does not reach 100%. However it shows that the drug stocks in FORNAS is complete and can fulfill the need of drug for JKN' patients. There are still much drugs which prescribed are non FORNAS. There are some drugs are often used as prime drug or as secondary drug but are not included in FORNAS. The following table shows non FORNAS drugs which are in patient's prescription sheet.

Based on table III, it shows non FORNAS drugs which dominate a prescription.

**Table III. Amount of Non FORNAS Drug Variant of JKN's Patients per Prescription Sheet in Yogyakarta City's Pharmacy in September 2014 - February 2015**

No.	Drugs Name	Total	No.	Drugs Name	Total
1	Neurodex	53	23	Mucohexin	1
2	Cavilex	27	24	Analisk 500 mg	1
3	Meloxicam 15 mg	23	25	Hexyner 2 mg	1
4	Quantidex	15	26	Kalnex 500 mg	1
5	Ambroxol	12	27	Salicyl Talk	1
6	Hufalgin	9	28	DMP	1
7	Grantusif	7	19	Cabazym	1
8	Sohobion	6	30	Ambeven	1
9	Meloxicam 7,5 mg	5	31	Desirel	1
10	Ifarsil Syr	5	32	Dextral - F	1
11	Tera - F	4	33	Intunal - F	1
12	Neurobion	3	34	Hufagrip - F	1
13	Flunadine	3	35	Propranolol 40 mg	1
14	Vitazym	3	36	Calladine Lotion	1
15	OBH Syr	3	37	Compolac Susp	1
16	Aspar K	2	38	Namhdin	1
17	crestor	2	39	Laxadin Syr	1
18	GG	2	40	V - Block	1
19	Molex - F	2	41	Demaacolin	1
20	Calamazze Lotion	2	42	New Diatrab	1
21	Needle Pen	1	43	Osmin	1
22	Alpeutin	1		<b>Total</b>	<b>211</b>

Written or not the drugs in FORNAS is completely the authority of Health Department of Indonesia. The result of this research is extremely possible to be a reference in arranging the next National Formulary (FORNAS).

### CONCLUSION

- The average amount of drug on JKN's patient per sheet prescription in Yogyakarta city's pharmacies in September 2014 - February 2015 is 2.8 drug/sheet.
- The percentage of drug which are in The National Formulary 2013 of patient's prescription per sheet in Yogyakarta city's pharmacy in September 2014 - February 2015 is 87.33%.

### REFERENCES

- Dewi, Christina Ayu Kurnia., Umi Athiyah, Mufarrilhan, Yunita Nita, 2014, Drug Therapy Problems pada Pasien yang Menorasi Resep Polifarmasi (Studi di Apotek Farmasi Airlangga Surabaya), *Jurnal Farmasi Komunitas*, Vol. 1 No. 1: 17-22, Universitas Airlangga, Surabaya
- Ernie HP, Ida Hafiz, 2007, Pemberian Obat Secara Polifarmasi pada Anak dan Interaksi Obat yang Ditimbulkan, *Media Litbang Kesehatan XVII Nomor 1*: 26-29, Jakarta
- Krisnadewi, Amalia Kusuma., Prihanto Budi Subagio, Wiratmo, 2014, Evaluasi Standar Pelayanan Minimal Instalasi Farmasi RSUD Wajuy Jati Kraksaan Sebelum dan Sesudah Badan Penyelenggara Jaminan Sosial (BPJS) Kesehatan, *e-Jurnal Pustaka Kesehatan*, Vol. 2 (No. 2): 194-196, Universitas Jember: Jember
- Yandrizal, Hendarini, Suryani.D, 2014, Analisis Ketersediaan Fasilitas dan Pembiayaan Kesehatan pada Pelaksanaan National Health Insurance di Provinsi Bengkulu, *Jurnal Kebijakan Kesehatan Indonesia*, Vol.03 No.04 page : 219

