ANALYSIS OF DRUG COST TOWARD CAPITATION COST FOR TOP DISEASES IN SPECIAL REGION OF YOGYAKARTA PUBLIC HEALTH CENTERS

SATIBI SATIBI1*, DIAHAYUPUSPANDARI2, RISMA SAKTI P3, TRISNADEWI N3, WILONAKULA1KA3,
1Department of Pharmaceutics, Pharmacy Faculty, Universitas Gadjah Mada, Indonesia. 2Department of Health Policy Management, Faculty of Medical, Universitas Gadjah Mada, Indonesia. 3Department of Pharmaceutics, Magister Management of Pharmacy, Pharmacy Faculty, Universitas Gadjah Mada, Indonesia. Email: Satibi@ugm.ac.id

Received: 03 March 2018, Revised and Accepted: 25 April 2018

ABSTRACT

Objective: In this study wanted to analyze the differences between actual and standard of prescription cost. Researchers also conducted an analysis to see whether there was a difference between actual and standard of drug value in the amount of capitation fund.

Methods: This study was a retrospective observational analytic. Medical prescriptions (January 2015–June 2015) will be obtained at several Puskesmas in DI Yogyakarta. Mann-Whitney test was performed to conduct whether there was a difference between actual and standard of prescription cost. Independent sample t-test was performed to conduct whether there was a difference between actual and standard of drug value in the amount of capitation fund.

Results: Based on the data, it showed that there was a significant difference (p<0.05) between actual and standard of prescription cost. There was also a significant difference between actual and standard of drug value in the amount of capitation fund at Puskesmas in Yogyakarta city and Bantul district. The difference of value caused by prescription cost value factor that there is duration component in calculation. Yet in Sleman district, there was no significant difference (p>0.05).

Conclusion: There was a significant difference between actual and standard of prescription cost. There was also a significant difference between actual and standard of drug value in the amount of capitation fund at Puskesmas in Yogyakarta city and Bantul district. Yet in Sleman district, there was no significant difference.

Keyword: Capitation system, BPJS, Cost analysis, Top five diseases, Puskesmas.

INTRODUCTION

The satisfaction and patient safety are very important in the health service in the era of JKN. Several factors that influence satisfaction is patient characteristics include education, employment, income and membership status, and service in systems JKN include services JKN and pharmacy services in the era of JKN have a significant relationship with patient satisfaction in primary health-care facilities [1]. To increase the quality of health service facility on the level one so that the development of payment system through capitation system is enacted. Health BPJS conducts the payment to Puskesmas by way of capitation on the total members registered in the First-level Health Service Facility [2]. Capitation fund received used to pay health service (60%) and operational cost of health service (40%). Operational cost including pharmacy supply management (drugs, reagan, and medical disposal material) and the other health operational [3]. Drug costs in era JKN depending on the pattern of cooperation with health facilities pharmacies and BPJS [4].

Several actual issues that appeared related with feasibility and economic value the amount of price of capitation, issue of using capitation fund by Puskesmas, and issue quality of health service that is given by Puskesmas. In the pharmaceutical field, the capitation rate for the component used to calculate the nominal amount multiplied by the total number of JKN participants enrolled in the puseksmas may be sufficient for the procurement of all medicines used for health services at the puskesmas [5]. Several researches showed that total direct cost components were incurred higher than the other components [6]. A number of drug sufficiency cost can be showed with indicator of the management of region drugs, among others the conformity of fun of drugs management, cost and fund of drugs per capita, and cost and drug fund each visit. Number of sufficiency of drug (AKO) gotten from herest of stock/total supply (inventory) divided by the average of using per month which can reflect the average of sufficient of drugcost.

Percentage calculation of drug component in the capitation number paid by Health BPJS should consider the total participants of JKN registered in Puskesmas. Utilization rate, prescription cost for each group of disease served by Puskesmas, and value of capitation tariff in number paid by Health BPJS to Puskesmas [5] from the above explanation, a research concerning analysis of capitation cost in the JKN era toward the top disease in Puskesmas in DI Yogyakarta.

Poverty rate in DI Yogyakarta is high enough so that it is necessary to pay attention toward financing of public health. BPJS program is one of the efforts to implement public health effort. From the above explanation, research concerning analysis of medicine cost toward the top five diseases in DI Yogyakarta Puskesmas. The research objective is to understand the percentage difference between actual and standard rate of drugs using capitation number.

METHODS

Research design

It includes analytical non-experimental study retrospectively. Source data used are secondary data derived from financial data Puskesmas capitation and recipe sheets.

Research subjects

The total number of samples used is 783 sheets of recipes scattered in three health centers and five biggest diseases for each district. The researchers calculated the proportion of the sample using the
method. The subjects of the study are the whole adult patients who are participants JKN at Kalasan Puskesmas, Puskesmas Ngemplak 2, PHC Mlati 1, PHC Banguntapan 2 Pleret Puskesmas, Puskesmas Sewon 1, Merangjan health centers, health centers, and health centers Tegalrejo Jetis yang disease diagnosed in the five biggest.

Collecting data
Collecting data are done by observing the source of data; they are prescription data, medical record datum management information system, and finance management and capitation income.

Data analysis
Data processing by calculating the value of prescription cost actual and standard and number of actual and standard drug component. The results were analyzed by Mann-Whitney and Independent Sample-Test. Mann-Whitney test is used to see if there is a difference between standard and actual prescription cost, whereas to see the difference between percentage actual and standard medicine component using independent sample t-test normal distributed data.

RESULTS AND DISCUSSION
The result is done by seeking information of top 10 of diseases in January 2015–June 2015 in each Puskesmas in each regency by searching through integrated SIMPUS ON p-care system, then result gotten in each Puskesmas is averaged and determined the top five diseases in each reagent. Data of the top diseases in each regency can be seen in Table 1.

Prescription cost value
Prescription cost value divided into two, actual and standard. Actual and standard prescription cost gotten by multiplying price per item in the prescription with total of the drugs, whereas for the standard by multiplying unit cost of prime drug each disease with standard dose and duration of standard drug. To calculate the value of prescription cost, it is necessary to consider Puskesmas therapy standard. Therapy standard used by Puskesmas refers to Puskesmas therapy in DI Yogyakarta along with decree of the Ministry of Health No. 5 year 2014 [7]. Standard made on the basis of those decree, then processed by dividing between defined daily doses (DDD) with the strength of stock of drugs according to the WHO, DDD is the dose of average daily maintenance assumed for using of drug with prime indication for adult patient. Value of actual prescription cost is gotten by multiplying the price of drugs and total number of drug [8]. The mean prescription cost can be seen in Table 2.

The result of actual and standard of each prescription then analyzed statistically by Mann-Whitney test. Mann-Whitney test is used to see the difference between standard of the top five diseases in Puskesmas. The result of statistical analysis shows that there is a difference between the values of actual and standard of prescription cost. It shows with p<0.05 (Table 3).

The result of research shows that value is p<0.05. In this case is the same with research done by Sudarsono in Puskesmas Pangkalpinang regency that shows that there is a difference of actual prescription cost value and standard (p<0.05) [5]. This difference is because of duration, total items of drugs, and dose of it. In this research, duration used between standard and actual written in the prescription. The difference of total amount of actual and standard prescription happened because there is a difference of components of the formation of cost during the process of calculation, among other duration, total item of drugs and dose of drugs. It is difference with the research conducted by Foster and Frost toward family doctors; we can take a decision that there is a variation of 60% on prescription cost value interpatients because of distribution of the difference of age and gender in the population, mortality ratio and also human resources in the population [9]. This is almost the same with Baker dan Klein who conducted a research of the family health-care area that 69% variation of prescription cost value identified because of mortality ratio, inhabitant proportion where there are more inhabitants at the age of 65 and ako total number of health human resources in the population [10].

Percentage value of drug component number
Value of component number in the amount of capitation tariff constitutes estimation value of drug component need for diseases therapy from total budget from capitation fund available in Puskesmas. Calculation of component numbers of drug from the result of study of prescription data will reflect more of the need of fund of drugs compared with search of using the previous fund of drug that is not always efficient [11]. Calculation of percentage value of component number of drugs used the mean of prescription cost (Table 2). Other

| Diagnosis                      | Total  |
|--------------------------------|--------|
| Yogjakarta city                |        |
| Primary hypertension           | 12.440 |
| Non-specific upper respiratory tract infection | 6.264 |
| Mellitus diabetes              | 5.122  |
| Myalgia                        | 3.307  |
| Dyspepsia                      | 1.973  |
| Sleman regency                 |        |
| Primary hypertension           | 4.900  |
| Pulpadesease and periapical tissue | 3.716 |
| Non-specific upper respiratory tract infection | 4.318 |
| Dyspepsia                      | 3.167  |
| Common cold/Acute nasopharyngitis | 2.477 |
| Bantul regency                 |        |
| Common cold                    | 6.834  |
| Hypertension                   | 4.731  |
| Myalgia                        | 3.396  |
| Mellitus diabetes              | 3.173  |
| Fever                          | 1.881  |

Table 2: Mean of actual and standard prescription cost value of five top diseases in Puskesmas

| Type of diseases | n  | Prescription cost value |
|------------------|----|-------------------------|
|                  |    | Actual | Standard |
| Yogjakarta city  |    |        |          |
| Primary hypertension | 335 | Rp 1.865 | Rp 3.460 |
| Not specific - upper respiratory tract infection | 169 | Rp 2.989 | Rp 6.060 |
| Mellitus diabetes | 138 | Rp 3.772 | Rp 8.798 |
| Myalgia           | 89  | Rp 4.039 | Rp 6.101 |
| Dyspepsia         | 53  | Rp 1.564 | Rp 4.439 |
| Sleman regency    |    |        |          |
| Primary hypertension | 207 | Rp 1.810 | Rp 2.893 |
| Pulpadesease dan periapical tissue | 157 | Rp 3.001 | Rp 4.517 |
| Not specific - upper respiratory tract infection | 182 | Rp 3.093 | Rp 5.433 |
| Dyspepsia         | 133 | Rp 1.469 | Rp 2.551 |
| Common cold       | 104 | Rp 1.963 | Rp 4.499 |
| Acute nasopharyngitis |      |          |          |
| Bantul regency    |    |        |          |
| Common cold       | 296 | Rp 2.237 | Rp 5.735 |
| Hypertension      | 162 | Rp 2.375 | Rp 3.435 |
| Myalgia           | 129 | Rp 2.236 | Rp 3.883 |
| Mellitus diabetes | 125 | Rp 4.556 | Rp 9.123 |
| Fever             | 71  | Rp 2.233 | Rp 2.615 |
components that are necessary to get more attention are capitation cost and morbidity number. Cost of capitation received by each Puskesmas gotten from multiplication of capitation tariff determined by BPJS with the total number of members in the Puskesmas. Data of Puskesmas capitation cost can be seen in Table 4.

### Table 3: Result of statistical analysis test Uji Mann–Whitney

| Diagnosis                   | Result of Mann–Whitney prescription cost | Mean±SD | p     |
|-----------------------------|-----------------------------------------|--------|------|
| Primary hypertension        | Rp 2.662±Rp 1.789                       | 0.00%  |      |
| Not specific of upper       | Rp 4.524±Rp 3.518                       | 0.00%  |      |
| respiratory                 |                                         |        |      |
| Mellitus diabetes           | Rp 6.280±Rp 3.777                       | 0.00%  |      |
| Myalgia                     | Rp 3.734±Rp 3.368                       | 0.00%  |      |
| Dyspepsia                   | Rp 2.998±Rp 2.437                       | 0.00%  |      |
| Sleman regency              |                                         |        |      |
| Primary hypertension        | Rp 2.353±Rp 1.089                       | 0.00%  |      |
| Pulpa disease dan periapical tissue | Rp 3.852±Rp 2.990   | 0.00%  |      |
| Not specific of upper       | Rp 4.433±Rp 2.809                       | 0.00%  |      |
| respiratory tract infection |                                         |        |      |
| Dyspepsia                   | Rp 2.062±Rp 1.556                       | 0.00%  |      |
| Common cold/                | Rp 3.210±Rp 1.664                       | 0.00%  |      |
| Nasopharyngitis acute       |                                         |        |      |
| Bantul regency              |                                         |        |      |
| Common cold                 | Rp 4.025±Rp 2.749                       | 0.00%  |      |
| Hypertension                | Rp 2.784±Rp 1.283                       | 0.00%  |      |
| Myalgia                     | Rp 3.126±Rp 1.686                       | 0.00%  |      |
| Mellitus diabetes           | Rp 7.040±Rp 3.578                       | 0.00%  |      |
| Fever                       | Rp 2.422±Rp 1.429                       | 0.00%  |      |

*Statistically significant (p<0.005). SD: Standard deviation

### Table 4: Capitation cost in Puskesmas

| Yogyakarta city | Capitation cost | Jetis | Mergangsan | Tegalrejo |
|-----------------|-----------------|-------|------------|----------|
| January         | Rp 84.494.000   | Rp 88.902.000 | Rp 114.978.000 |
| February        | Rp 89.710.000   | Rp 89.988.000 | Rp 117.294.000 |
| March           | Rp 91.688.000   | Rp 93.566.000 | Rp 119.796.000 |
| April           | Rp 95.780.000   | Rp 91.686.000 | Rp 125.794.000 |
| May             | Rp 93.722.000   | Rp 92.874.000 | Rp 121.316.000 |
| June            | Rp 94.916.000   | Rp 93.690.000 | Rp 122.408.000 |
| Mean            | Rp 91.718.333   | Rp 91.751.000 | Rp 120.264.333 |

| Sleman regency  | Capitation cost | Ngemplak 1 | Kalasan | Mlati 2 |
|-----------------|-----------------|------------|---------|---------|
| January         | Rp 43.814.000   | Rp 135.402.000 | Rp 95.054.000 |
| February        | Rp 47.270.000   | Rp 137.808.000 | Rp 98.782.000 |
| March           | Rp 64.071.000   | Rp 170.520.000 | Rp 151.806.000 |
| April           | Rp 60.195.000   | Rp 168.872.000 | Rp 105.400.000 |
| May             | Rp 50.186.000   | Rp 166.526.000 | Rp 100.730.000 |
| June            | Rp 50.960.000   | Rp 167.426.000 | Rp 145.308.000 |

| Bantul regency  | Capitation cost | Banguntapan 2 | Pleret | Sewon 1 |
|-----------------|-----------------|---------------|--------|---------|
| January         | Rp 95.682.000   | Rp 162.612.000 | Rp 153.252.000 |
| February        | Rp 96.636.000   | Rp 163.674.000 | Rp 155.400.000 |
| March           | Rp 98.220.000   | Rp 164.855.000 | Rp 159.036.000 |
| April           | Rp 100.980.000  | Rp 166.956.000 | Rp 166.248.000 |
| May             | Rp 99.316.000   | Rp 165.546.000 | Rp 162.366.000 |
| June            | Rp 99.864.000   | Rp 165.882.000 | Rp 162.798.000 |

Percentage calculation of drugs component number in general showed by the formula as follows:

\[
AKO = \left( \frac{\text{Number of Morbidity} \times \text{Prescription Cost}}{\text{Total Members of JKN}} \right) \times 100\%
\]

Result of actual and standard calculation of AKO in percentage and rupiah showed in Table 5.

From calculation, we get value of percentage actual and standard of drug component in each Puskesmas that the difference seems high enough. It is the same with previous research done by Sudarsono that there is a difference between percentage value and number of actual and standard component in Puskesmas in Pangkalpinang city [5]. The difference of value caused by prescription cost value factor that there is duration component in calculation. To understand the difference, it is significantly different. Hence, it is necessary to test using statistical method analyze independent sample t-test. The result of that statistic can be seen in Table 6.

From research data of actual and standard component number indicate that there is difference between percentage of actual and standard component number with P value <0.05. In the previous research shows that there is a difference of percentage of actual and standard value of component number with value of <0.038 in Puskesmas in Pangkalpinang city [5]. Whereas in Sleman regency, there is no significant difference between percentage value of actual and standard component number; it is p=0.05. Hence, the actual of using capitation is not a lot different with standard, but it is necessary to evaluate so that it will be appropriate with the standard so that the drug management of Puskesmas in Sleman regency will be efficient. Using of drug pattern in Puskesmas, all over Palangka Raya city on the therapy of five top disease depends on the stock of drug in Puskesmas [12]. Changes in the availability of drugs in pharmaceutical warehouses and in Puskesmas affect the pattern of drug use in the treatment of the five diseases. It is very appropriate with the reality of research finding that level of availability cost of drug depends on the level of the adequacy of drug fund allocated. In Puskesmas’ in Kapuas Hulu, prescription depends on the stock of drug in Puskesmas so that the result is rational treatment a little bit ignored. In the research done in Uganda, stated that there are some variables that must be considered in allocating the need of pharmacy cost, among others are total number of visits by patients, population of inhabitants, total number of health facilities in the regency, and also poverty rate per regency [11].

This research constitutes assumption of estimated calculation of the amount of budget for drug components in total amount of capitation received. This assumption uses scenario of percentage calculation cost of drug component of capitation. This can be an input if in Puskesmas the source of drugs delivery is from capitation, so Puskesmas can fulfill the need of drugs so that the other fund received can be spent maximally for the other operational activities such as promotion, prevention, and rehabilitation. Prescription that has small value can transfer other cost for preventive and promotive program [13]. Pharmacist is hoped can be cooperative with doctor in clinic serving and helping to choose the efficient drug cost, one of the way is by proposing the doctor to reduce the duration of treatment if it takes a lot of time and makes it longer if it is too fast [14]. Long duration can cause side effect or inefficient drug cost, one of the way is by proposing the doctor to reduce the duration of treatment if it takes a lot of time and makes it longer if it is too fast [14]. Long duration can cause side effect or inefficient drug cost, one of the way is by proposing the doctor to reduce the duration of treatment if it takes a lot of time and makes it longer if it is too fast [14].

**CONCLUSION**

From the research, it can be concluded that there was a significant difference between actual and standard of prescription cost. There was also a significant difference between actual and standard of drug value.
Table 5: The amount of drugs component number in Puskesmas

| Puskesmas          | Mean of capitation cost | Name of diseases | Drug component number | Actual     | Standard     | %   |
|--------------------|-------------------------|------------------|-----------------------|------------|--------------|-----|
|                    |                         |                  |                       | Rp (%)     | Rp           |     |
| Jetis              | Rp 91.718.333           | HT               | Rp 419.401 (0.46)     | Rp 1.103.222 | 1.20         |     |
|                    |                         | ISPA-ts          | Rp 332.134 (0.36)     | Rp 786.063 | 0.86         |     |
|                    |                         | DM               | Rp 290.587 (0.32)     | Rp 1.062.730 | 1.18         |     |
|                    |                         | ML               | Rp 187.137 (0.20)     | Rp 441.503 | 0.48         |     |
|                    |                         | DP               | Rp 68.589 (0.07)      | Rp 179.530 | 0.20         |     |
| Total              | Rp 1.297.848 (1.42)    |                  |                       | Rp 3.572.850 | 3.90         |     |
| Mergangsan         | Rp 91.751.000           | HT               | Rp 708.863 (0.77)     | Rp 1.067.745 | 1.16         |     |
|                    |                         | ISPA-ts          | Rp 693.507 (0.76)     | Rp 1.628.903 | 1.78         |     |
|                    |                         | DM               | Rp 629.782 (0.69)     | Rp 1.539.278 | 1.68         |     |
|                    |                         | ML               | Rp 61.849 (0.07)      | Rp 242.790 | 0.26         |     |
|                    |                         | DP               | Rp 70.686 (0.08)      | Rp 189.934 | 0.21         |     |
| Total              | Rp 2.164.690 (2.36)    |                  |                       | Rp 4.668.652 | 5.09         |     |
| Tegalrejo          | Rp 120.264.333         | HT               | Rp 885.488 (0.74)     | Rp 1.776.365 | 1.48         |     |
|                    |                         | ISPA-ts          | Rp 615.794 (0.51)     | Rp 917.154 | 0.76         |     |
|                    |                         | DM               | Rp 766.408 (0.64)     | Rp 1.539.278 | 1.68         |     |
|                    |                         | ML               | Rp 335.468 (0.28)     | Rp 813.747 | 0.69         |     |
|                    |                         | DP               | Rp 132.313 (0.13)     | Rp 271.157 | 0.23         |     |
| Total              | Rp 2.735.472 (2.27)    |                  |                       | Rp 4.976.615 | 4.14         |     |
| Sleman regency     |                         |                  |                       |            |              |     |
| Ngemplak 1         | Rp 52.749.333,-        | HT               | Rp 170.662 (0.32)     | Rp 233.003 | 0.44         |     |
|                    |                         | PP               | Rp 149.610 (0.28)     | Rp 228.971 | 0.43         |     |
|                    |                         | ISPA             | Rp 30.247 (0.06)      | Rp 46.707 | 0.09         |     |
|                    |                         | DP               | Rp 94.957 (0.18)      | Rp 192.169 | 0.36         |     |
| Total              | Rp 217.354.000         |                  |                       | Rp 1.079.815 | 2.05         |     |
| Kalasan            | Rp 157.759.000,-       | HT               | Rp 165.615 (0.10)     | Rp 267.453 | 0.17         |     |
|                    |                         | PP               | Rp 104.425 (0.07)     | Rp 174.282 | 0.11         |     |
|                    |                         | ISPA             | Rp 232.507 (0.15)     | Rp 420.420 | 0.27         |     |
|                    |                         | DP               | Rp 124.316 (0.08)     | Rp 209.720 | 0.13         |     |
|                    |                         | CC               | Rp 84.455 (0.05)      | Rp 191.043 | 0.12         |     |
| Total              | Rp 711.317 (0.45)      |                  |                       | Rp 1.262.917 | 0.80         |     |
| Mlati 2            | Rp 116.146.666,-       | HT               | Rp 264.782 (0.23)     | Rp 477.227 | 0.41         |     |
|                    |                         | PP               | Rp 620.113 (0.07)     | Rp 987.506 | 0.76         |     |
|                    |                         | ISPA             | Rp 745.649 (0.15)     | Rp 1.431.328 | 1.23         |     |
|                    |                         | DP               | Rp 124.316 (0.08)     | Rp 209.720 | 0.13         |     |
|                    |                         | CC               | Rp 84.455 (0.05)      | Rp 191.043 | 0.12         |     |
| Total              | Rp 1.770.684 (1.52)    |                  |                       | Rp 3.083.386 | 2.62         |     |
| Bantul regency     |                         |                  |                       |            |              |     |
| Banguntapan2       | Rp 98.449.666,67       | CC               | Rp 311.131 (0.32)     | Rp 838.035 | 0.85         |     |
|                    |                         | HT               | Rp 71.893 (0.07)      | Rp 120.340 | 0.12         |     |
|                    |                         | ML               | Rp 146.175 (0.15)     | Rp 241.945 | 0.25         |     |
|                    |                         | DM               | Rp 90.106 (0.09)      | Rp 221.359 | 0.22         |     |
|                    |                         | FV               | Rp 21.751 (0.02)      | Rp 33.621 | 0.03         |     |
| Total              | Rp 641.059.666         |                  |                       | Rp 1.455.302 | 1.48         |     |
| Pleret             | Rp 164.921.000,00      | CC               | Rp 317.305 (0.19)     | Rp 794.198 | 0.48         |     |
|                    |                         | HT               | Rp 300.772 (0.19)     | Rp 445.057 | 0.27         |     |
|                    |                         | ML               | Rp 66.402 (0.04)      | Rp 120.760 | 0.07         |     |
|                    |                         | DM               | Rp 548.112 (0.07)     | Rp 980.429 | 0.59         |     |
|                    |                         | FV               | Rp 149.295 (0.09)     | Rp 184.325 | 0.11         |     |
| Total              | Rp 1.942.795 (1.22)    |                  |                       | Rp 3.331.206 | 2.08         |     |
| Sewon 1            | Rp159.850.000,00       | CC               | Rp 419.560 (0.26)     | Rp 1.043.679 | 0.65         |     |
|                    |                         | HT               | Rp 447.777 (0.29)     | Rp 577.715 | 0.36         |     |
|                    |                         | ML               | Rp 279.846 (0.18)     | Rp 432.319 | 0.27         |     |
|                    |                         | DM               | Rp 555.417 (0.35)     | Rp 1.060.290 | 0.66         |     |
|                    |                         | FV               | Rp 240.192 (0.15)     | Rp 217.201 | 0.14         |     |
| Total              | Rp 1.942.795 (1.22)    |                  |                       | Rp 3.331.206 | 2.08         |     |

HT: Primary hypertension, CC: Common cold, FV: Fever, PP: Pulpa disease, DP: Dyspepsia, ISPA-ts: Not specific - upper respiratory tract infection, DM: Type 2 non-insulin-dependent mellitus diabetes, ML: Myalgia

ACKNOWLEDGMENTS

For the Faculty of Pharmacy Universitas Gadjah Mada which support finance for this research

AUTHOR’S CONTRIBUTION

All authors have made substantial contributions to the work reported in the manuscript. Satibi Satibi: Conception and designing of the study, data analysis and interpretation, drafting the article, critical revision of the article, and final approval of the study to be published. Risma Sakti Pambudi: Concepting of the study, data collection, data analysis
Table 6: Result of statistical analysis of independent sample t-test

| AKO value          | n  | Result of test (p) |
|--------------------|----|--------------------|
| Yogyakarta city    | 6  | 0.007*             |
| Sleman regency     | 6  | 0.272              |
| Bantul regency     | 6  | 0.035*             |

Significance p<0.05

and interpretation, and drafting the article. Trisna Dewi N: Concepting of the study, data collection, data analysis and interpretation, and drafting the article. Wilona Kaulika: Data collection, data analysis and interpretation, and drafting the article. Diah Ayu Puspandari: Conception and designing of the study, drafting the article, and critical revision of the article.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

REFERENCES

1. Satibi S, Puspandari DA, Cristanti PA, Sendi SL. Factors affecting patient satisfaction in JKN system: Study on patient characteristics, jkn services, and pharmacy services. Indone J Pharm 2015;26(4): 233-240.

2. BPJS. Regulation of the Social Security Administering Body of Health, No. 2 of 2015, Norms of Implementation of Capacity and Capacity-Based Payments commitment of Service Commitment to First Level Health Facilities. Jakarta: BPJS; 2015.

3. Ministry of Health. Regulation of the Minister of Health of the Republic of Indonesia Number 28 of 2014 on Guidelines for Implementation of National Health Insurance Program. Jakarta: Ministry of Health; 2014.

4. Satibi S, Dewi DA, Atika DA, Kaswindiarti N, Puspandari DA. Drug cost analysis on national insurance era in health support facilities. Asian J Pharm Clin Res 2017;10:119-21.

5. Sudarsono S. Identification of Drug Related Problem and Value Analysis of Prescription Cost and Percentage of Drug Components in Tariffs of Capitation Rates of Puskesmas in Pangkal Pinang City, Thesis, Universitas Gadjah Mada; 2016.

6. Nachiy RA, Parimalakrishnan S, Rao MR. Cost analysis of antihypertensive agents in rural population: A prospective study. Int J Pharm Pharm Sci 2016;8:225-30.

7. Ministry of Health. Regulation of the Minister of Health No. 5 of 2014 on Doctor Clinical Practice Guidance at Primary Health Care Facilities. Jakarta: Ministry of Health; 2014a.

8. World Health Organization. Definition and General Consideration: Defined Daily Dose. Geneva: World Health Organization; 2016. Available from: http://www.whocc.no/ddd/definition_and_general_considera.

9. Forster DP, Frost CE. Use of regression analysis to explain the variation in prescribing rates and cost between family practitioner committees. Br J Gen Pract 1991;41:67-71.

10. Baker D, Klein R. Explaining output of primary health care: Population and Practice Factors. Br Med J 1991;303:225-9.

11. Mujasi PN, Junoy JP. What variables should be considered in allocating primary health care pharmaceutical budgets to districts in Uganda. J Pharm Policy Pract 2015;8:3.

12. Prawitasari, Dwiprahasto I, dan Danu SS. The effect of drug availability on drug use patterns on therapy of five diseases at public health center at palangkaraya city public health centre. J Health Serv Manage 2002;5:83-92.

13. Morgan SG, Law M, Daw JR, Abraham L, Martin D. Estimated cost of universal public coverage of prescription drug in Canada. Can Med Assoc J 2015;187:491-7.

14. Barnett M, Frank J, Wehring H, Newland B, dan VanMouster S. Analysis of pharmacist-provided medication therapy management (MTM) services in community pharmacies over 7 years. J Manag Care Pharm 2009;15:18-31.

15. Nurcahyo H, Marchaban M, Sumarni S. Human quality of service in the age of national healthcare guarantee against patient satisfaction. J Manage Pharm Serv 2015;5:104-8.