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Role of Direct Cost in Unit Cost Based on Activity-Based Costing in the Inpatient Room of the MS General Hospital

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ABSTRACT

Unit cost was real cost at hospital care. Unit cost was component of rational services tariff. The problem was nothing of standarized proportion of direct cost and indirect cost on unit cost in the inpatient room. The purpose of this study was to compare direct cost and indirect cost in unit cost based on activity based costing in the inpatient room. Type of this research was survei using cross sectional approach. The location of this study was "MS" general hospital at year 2017. The analysis units of this study was inpatient rooms. Data analysis using descriptive. The results showed that direct cost higher than indirect cost in unit cost based on activity based costing. Overall, proportion of direct cost and indirect cost was 87,42 % and 12,58 %. Role Proportion of direct cost and indirect cost in Flamboyan Room was 94,36 and 5,64. Proportion of direct cost and indirect cost in Bougenville Room was 93,89 and 6,11. It's mean that direct cost had role largest in unit cost. Proportion of direct cost and indirect cost in Mawar Room was 89,75 and 10,25. Proportion of direct cost and indirect cost in Dahlia Room was 92,08 and 7,92. Proportion of direct cost and indirect cost in Kemuning Atas Room was 90,69 and 9,31. Proportion of direct cost and indirect cost in Kemuning Bawah Room was 78,34 and 21,66. Proportion of direct cost and indirect cost in Wijayakusuma Room was 76,84 and 23,16. Proportion of direct cost and indirect cost in Melati Room was 82,51 and 17,49. Proportion of direct cost and indirect cost in maternity Room was 88,31 and 11,69. The conclusion were direct cost higher than indirect cost on unit cost. Proportion direct cost and indirect cost been used to compare real cost and INA CBGs tariff.

Keywords: *direct cost, indirect cost, unit cost, activity based costing*

1. INTRODUCTION

The program of National Health Insurance (NHI) began to be implemented in Indonesia in 2014 and brought significant changes both in the service and financing systems, especially in hospitals. Problems faced in the NHI era were problems related to the quality of health services. Hospitals and other health service providers were required to provide excellence and comprehensive health services to public. In addition, hospitals were also required to improve the efficiency of health services in the NHI era (12). Increasing the number of NHI members increases the level of access to health facilities by public, which was marked by an increase in the visit of several diseases.

This condition had resulted in increased costs of providing health services (7). On the one hand, a significant increase of patient visits makes the workload of medical workers become heavier which impacts on the quality of their services (2). Changes in the payment mechanism in the NHI era caused the cost of health services provided by the hospital to follow the standards tariff set by the INA-CBGs. However, Ananta (2) said that the application of INA-CBS tariff according to several hospital management and health provider had not been able to cover the actual cost of health services provided (actual cost). Research conducted by Edya (9) shows that the cost recovery rate for inpatients who BPJS participants was 83.2%, which means that the income of inpatients of Social Security Management Agency (SSMA)–Health members has not fully covered the operational costs of these patients, even though according to Azwar (5), availability of funds and facilities became an important factor influencing the quality of health services. The fact of its implementation showed that there were still

some cost components that were considered to be too low compared to the claims paid by SSMA–Health to the Hospitals (8). The health financing system using the payment model using INA-CBGs tariff which was paid prospectively could be a threat to the hospital, especially if the INA-CBGs tariffs that were determined cannot cover the overall costs incurred by the hospital (7). Thus, the low claim rates by SSMA–Health to the hospitals potentially reduce the quality of hospital health services.

Hospital's tariff was the fees received by the hospital for services from both service and non-service activities provided to public. Hospital tariff is calculated based on the unit cost which is the result of calculating the total cost of each activity incurred by the hospital. Hospital tariff was calculated based on the components of facilities and services cost. The facility cost component consists of costs for the use of accommodation, non-medical materials, drugs, medical material and equipment devices that were used directly in health services and other supporting services. The service cost component consists of costs for services provided to patients by medical service providers, medical support services and or other services (14). On the other hand, the INA-CBG tariff was a tariff system based on the classification of the codification system were the output of services based on revised ICD-10 in 2010 for the diagnosis and revised ICD-9-CM in 2010 for interventions or procedures. The grouping was carried out using information technology systems in the form of INA-CBG applications which produced a total of 1,075 case groups consisting of 786 inpatient cases and 289 outpatient cases (15). The INA-CBG tariff was a tariff package consisting of all parts of hospital resources used in providing services to patients both medically and non-medically. The calculation of INA-CBG tariff was following hospital costing data and coding data. Costing data was data of costs that were spent by hospitals both operationally and investment, which were obtained from selected hospitals that represent the whole hospital. The coding data was obtained from NHI claim data. The INA-CBG tariff grouping was adjusted after looking at the amount of Hospital Base Rate (HBR) obtained from the calculation of the total cost of some hospitals. If there was more than one hospital in one group, the Mean Base Rate was used (15).

The difference between the hospital tariffs and the INA CBG tariff become a trigger for hospitals, especially in the NHI era, to standardize their tariff so that a difference does not cause the hospital to suffer losses. As one of the important input bases for standardizing tariffs, unit cost give an important role in obtaining information on budget planning, cost control, pricing, setting subsidies and assisting in decision making. The calculation process has the aim that the efficiency and performance of each installation, outpatient or component in the service process at health service provider institutions can be monitored properly (18). This is done so that the balance between hospital income and production costs can be planned as well as possible so that health care activities for patients can be carried out optimally, appropriately and affordably for the community (19). Using of unit cost as an indicator of the effectiveness and efficiency of health services according to Adhikari (1) is indeed widely used in developing countries, including Indonesia.

According to Hansen and Mowen (10), unit cost was the total cost associated with a unit produced divided by the number of units produced. According to Supriyono (21), unit cost was all cost incurred in carrying out production activities or producing services divided by the number of activities or services produced. One of the most effective unit cost calculation methods used to calculate unit cost was the Activity-Based Costing (ABC) method. Activity-based costing was a method that applies the concept of activity accounting to produce more accurate product cost calculations. In a managerial perspective, ABC systems offer more than just accurate product cost information but also provide information about costs and performance of activities and resources, and also can track costs accurately to cost objects (17). The steps in designing activity-based costing according to Mulyadi (17), were carried out in two stages: the first was activity-based process costing, and the second stage was activity-based object costing. Activity-based process costing was the stage where costs were classified into two major groups, including direct costs and indirect costs. Direct cost was costs that arise due to the use of resources that were entirely caused by the giving of health interventions (16). According to Jayanti (13), direct cost was a cost incurred due to something being financed.

According to Bastian (6), direct costs represent costs incurred or used directly in production activities in a production unit. Types of direct costs such as staff costs and equipment costs used in production activities. The characteristic of direct costs was that the allocation of costs or inputs that have been determined can be compared with the output or the product produced. Indirect cost was cost incurred and come from various activities in addition to production activities that were interrelated (6). According to Jayanti (13), indirect cost was a cost that occurs not only because of something being financed. Bastian (6) defines indirect cost as a cost incurred and derived from various activities other than interrelated production activities. This cost was not directly affected by the activities or programs in the organization. Indirect costs are usually used periodically, generally monthly in order to coordinating the implementation of generally organizational authority.

The next in this stage, the direct costs recording of products or services were done in two stages, namely costs recording per activity and costs recording per product or service. The recording of indirect costs of products or services, these costs were divided into two groups, namely costs that can be imposed directly to activities through direct tracing were recorded separately, while costs that cannot be imposed

directly and use the resource driver in loading were recorded and added separately in the responsibility account system. The second stage is activity-based object costing. Activity-based object costing consist of 1) determination of the activity cost pool, it's carried out to determine the group of activities of each product or service, 2) the imposition of costs between activities using certain activities, therefore it needs to be imposed to the activities that consume them, and 3) imposition of result-producing costs to the cost object (17) . Therefore, direct cost information was key and important and also very necessary in calculating unit costs based on the ABC method.

Previous study that has been conducted by Destanul Aulia, Sri Fajar Ayu, Nefonafratilova (4) about a comparative analysis of direct costs and indirect cost for stroke patients in a hospital. That study discusses in different contexts, the direct cost was a cost borne by the SSMA–Health, while the indirect cost was a cost borne by patients. In addition, the discussion was only on one disease, namely stroke. Thus, an understanding of the direct costs and indirect costs in health services in hospitals was very important to know and analyze with the aim of providing an understanding of the services and clinical procedures provided in each service process (23). In addition, information related to direct costs and indirect costs can be a tool for monitoring and controlling of costs and can determine the production sites that give profit or even cause losses. The availability of data related to direct and indirect cost, it can compare the cost of health services with competitors based on differences in the quality of services, costs, ways of providing, and determining tariff (23). Based on the above discussion, a study of the proportion of direct and indirect cost in unit cost using the ABC method was carried out in the inpatient unit of the "MS" general hospital. The problem was nothing of standarized proportion of direct cost and indirect cost on unit cost in the inpatient room. The purpose of this study was to compare direct cost and indirect cost in unit cost based on activity based costing in the inpatient room.

2. METHOD

Type of this research was a survey using a cross-sectional approach. The location of this study was the general hospital "MS" in 2017. The analysis units of this study were inpatient rooms consisting of Flamboyan rooms, Bougainville rooms, Mawar rooms, Dahlia rooms, Kemuning Atas room, Kemuning Bawah room, Wijaya Kusuma room, Melati room and maternity room. The research variable consists of direct cost and indirect cost. Direct cost consists of consumable medical costs, medical or paramedical personnel costs, and medical equipment cost. Indirect costs consist of indirect costs at the production unit and indirect cost at the facility activity (non-production unit). Indirect cost on the production unit consists of building depreciation cost, non-medical equipment depreciation cost, non-medical consumable cost, general costs (electricity, water, telephone and internet), other operational costs, and maintenance cost. The indirect cost of facility activity consists of building depreciation costs, vehicle depreciation cost, non-medical equipment depreciation cost, non-medical consumable cost, general costs (electricity, water, telephone and internet), other operational costs, and maintenance costs. Secondary data were collected using the form. Data analysis using descriptive.

3. RESULTS AND DISCUSSION

The results of research conducted at the "MS" general hospital in 2017 consisted of nine stages. First, identify the product (type) of service in each production unit (in this case was inpatient room) and the number of services (patients) per type of service. At this stage, it that described in this paper was only the overall type of service from the production unit. Second, identification of activities per type of service and the time (described in appendix). Third, calculating direct cost per type of service in each production unit, including consumable medical materials cost, medical and paramedics personnel cost, medical equipment, cost, then calculated the total of direct cost. At this stage, it that described in this paper was only the average of the total direct cost of all types of services per production unit. Fourth, calculating the indirect cost in the production unit, including investment cost (building depreciation, and depreciation of non-medical equipment); operational cost [non-medical consumables, general costs (electricity, water, telephone and internet), other operational costs]; and maintenance cost, then calculated the total indirect cost. At this stage, it that described in this paper was only the total indirect cost per production unit. Fifth, identify facility activity in non-production units and cost drivers (described in the appendix). Sixth, calculating the indirect cost in facility activity, including investment cost (building depreciation, vehicle depreciation, and depreciation of non-medical equipment); operational cost [non-medical consumables, general costs (electricity, water, telephone and internet), other operational costs]; and maintenance cost, then the total indirect cost were calculated. At this stage, it that described in this paper was only the total indirect costs for each facility activity. The seventh, imposing indirect cost on the facility activity to the production unit. At this stage, it that described in this paper was only the amount of total indirect costs in facility activity which was imposed to the inpatient room as a production unit. Eighth, the imposition of indirect costs in each production unit and facility activity to each type of service per production unit. At this stage, it that described in this paper was only the average of total indirect costs of the whole type of service per production unit. Ninth, it recapitulate direct costs and indirect costs and determine the proportion in percentage. The results of identification and calculation that can be described in this paper are as follows (it only that described in this paper):

1. Products (Types) Services in Each Production Unit

Table 1. Products (Types) Of Services in Each Production Unit

No.	Types of Services Products	Flamboyan Room	Bougenville Room	Mawar Room	Dahlia Room	Kemuning bawah Room	Wijaya Kusuma Room	Kemuning Atas Room	Melati Room	Maternity Room
1.	Injection	√		√	√	√	√	√	√	√
2.	Nebulizer	√	√	√	√	√	√	√	√	√
3.	Infusion	√	√	√	√	√	√	√	√	√
4.	Catheter Installation	√	√	√	√	√	√	√	√	√
5.	Oxygen Installation with Nasal Canules	√	√	√	√	√	√	√	√	√
6.	Blood Sampling	√	√	√	√	√	√	√	√	√
7.	Blood Transfusion	√	√	√	√	√	√	√	√	√
8.	Basic of Nursing / Midwifery Per Day	√	√	√	√	√	√	√	√	√
9.	Class II Room Accommodations	√	√	√					√	√
10.	Class III Room Accommodations	√	√	√					√	√
11.	Isolation Room Accommodation	√		√		√				
12.	Class I Accommodation							√	√	√
13.	VVIP Class Room Accommodation							√		√
14.	Visite Doctor Class I, Main, VIP, VVIP					√	√	√	√	√
15.	Visite Doctor Class II, III	√	√	√					√	√
16.	Doctor Consultation (Including On Call)	√	√	√	√	√	√	√	√	√

Table 1. Shows that overall there were 150 types of services in the inpatient rooms of the "MS" general hospital which were calculated their unit cost. Each inpatient room was an average of about 58 different service products and it's adjusted to the capacity and components of the inpatient room. Some intervention in all inpatient rooms include nebulizer, infusion, urin catheter, oxygen setting up with nasal canules, blood sampling, blood transfusion, basic daily care, room accommodation, doctor's visite and doctor's consultation.

This list of types of service can provide an illustration for other hospitals when calculating the unit cost and tariff per procedure. In this NHI era, unit cost and tariff per procedure were very beneficial for hospitals as part of tools in cost control. Hospitals can find out how much money is spent per day by patients of SSMA-Health's members or patients of non SSMA-Health's (general) by monitoring the billing system. In addition, unit cost and tariff per procedure when combined with clinical pathways can produce a cost of treatment per diagnosis and a tariff per diagnosis. This is in line with research conducted by Noer Triyanto Rusli (20) on cost analysis and determinants of hemodialysis services inefficiency analysis in patients with renal failure in RK Charitas Palembang Hospital. That study suggests that with the enactment of NHI in hospitals, it will change the payment system from a retrospective payment (fee for service) to a prospective payment system (INA-CBG's).

In addition, Tejosukmono (22) also mentioned that hospitals can compare unit costs with INA-CBG tariff, so hospitals can make cost efficiency adjustments without having to imposed these service costs to patients. As one of the health care facilities, RK Charitas Hospital has the role to provide quality services while still give attention to the cost-effective services provided. Cost analysis using the activity-based costing (ABC) approach with the bottom-up method can determine the cost allocation by identifying the cost per type of hemodialysis service. The stages of identification of activities per type of service and time are described in the appendix because of the presentation priority of research results, and because too many will be described.

2. Total Direct Costs per Type of Service in Each Production Unit

The total direct costs per type of service in each production unit are described as a whole per unit of production in the inpatient of local general hospital "MS" which consists of a Flamboyant Room, Bougenville Room, Mawar Room, Dahlia Room, Kemuning Atas Room, Kemuning Bawah Room, Wijaya Kusuma Room, Melati Room and Maternity Room. The total direct costs in this study consisted of the cost of consumable medical materials, medical personnel and paramedical costs, and the cost of medical devices. The details per component of the direct costs per type of service per unit of production are described in the appendix because too much will be described.

Table 2. Average of Total Direct Costs of Overall Service Types per Production Unit

	Production Unit	Average of Total Direct Costs (IDR)	No.	Production Unit	Average of Total Direct Costs (IDR)
1	Flamboyan Room	111.566	6.	Wijaya Kusuma Room	91.340
2	Bougenville Room	123.837	7.	Kemuning Atas Room	117.566
3	Mawar Room	72.624	8.	Melati Room	63.479
4	Dahlia Room	143.434	9.	Maternity Room	97.588
5	Kemuning Bawah Room	125.747			

Costs was in the Dahlia Room with a total direct cost of IDR 143.434. It's because the Dahlia room has the highest number of service products compared to other inpatient rooms, namely 48 service products. While the lowest average of total direct costs was in the Melati Room with a total direct cost of IDR 63.479 with 34 service products. The direct cost component consists of the consumable medical materials cost, medical personnel and paramedical costs, and medical equipment cost per type of procedure. Direct costs in this study differ from the definition of direct cost used in the research of Noer Triyanto Rusli (20), and Destanul Aulia, Sri Fajar Ayu, Nur Hidayah Nasution (3) that the direct costs consist of consumable medical materials, investment costs, operational costs and maintenance costs in the production unit. Likewise, according to Destanul Aulia, Sri Fajar A, and Nefonafratilova (4) in the context of treatment costs that the

direct costs was the service costs borne by the SSMA-Health includes the hospitalization cost of patients per day, examination cost, consultation, supporting/laboratory/ equipment, medical procedure costs, drugs and administrative costs.

3. Total Indirect Costs per Production Unit

The total indirect costs including investment costs, operational costs and maintenance costs were described in each production unit in the inpatient of "MS" general hospital which consists of Flamboyant Room, Bougenville Room, Mawar Room, Dahlia Room, Kemuning Atas Room, Kemuning Bawah Room, Wijaya Kusuma Room, Melati Room and Maternity Room. Components of indirect costs in the production unit in this study consist of 1) investment costs (buildings depreciation, and non-medical equipment depreciation); 2) operational costs [non-medical consumables, general costs (electricity, water, telephone and internet), other operational costs]; and 3) maintenance costs. The details per component of the indirect costs per production unit were described in the appendix because too much will be described.

Table 3. Total Indirect Costs for Each Production Unit

No.	Production Unit	Total Indirect Cost of Production Unit (IDR)	No.	Production Unit	Total Indirect Cost of Production Unit (IDR)
1.	Flamboyan Room	369.472.857	6.	Wijaya Kusuma Room	427.021.021
2.	Bougenville Room	401.376.722	7.	Kemuning Atas Room	529.737.074
3.	Mawar Room	289.243.772	8.	Melati Room	214.509.934
4.	Dahlia Room	303.706.122	9.	Maternity Room	200.211.032
5.	Kemuning Bawah Room	500.417.600			

Table 3 shows that the Kemuning Atas Room spent the highest indirect costs of IDR 529.737.074. Meanwhile, the lowest indirect cost was the Maternity Room with a total cost of IDR 200.211.032. Indirect costs in the production unit in this study was different from the definition used in Noer Triyanto Rusli's (20) study that investment, operational and maintenance costs in the production unit were categorized as direct costs.

The stages of identifying facility activities in non-production units and cost drivers, and the number of cost drivers for each facility activity were described in the appendix because of the presentation priority of research results, and too many will be described.

4. Total Indirect Costs at Facility Activity (FA)

The total indirect costs include investment costs, operational costs and maintenance costs in facility activities (non-production supporting units) of "MS" general hospital which consists of management services (offices), medical record services, hospital management information system (HMIS) services, pharmaceutical services, nutrition services, education and training services and development research, central sterile supplay departement (CSSD) services, laundry services, equipment maintenance services, building maintenance services, electricity and sanitation services, cleaning and garden services, security services, and waste management services. The description of investment costs (buildings depreciation, vehicles depreciation, and non-medical equipment depreciation), operational costs [non-medical consumables, general costs (electricity, water, telephone and internet), other operational costs]; and maintenance costs for each facility activity were described in the appendix because too much will be described. (Table 4).

Table 4. Total Indirect Costs For Each Activity Activity

No.	Facility Activity	Total of Indirect Cost in FA (IDR)	No.	Facility Activity	Total of Indirect Cost in FA (IDR)
1.	Management Services (Offices)	7.397.647.784	8.	Laundry Service	329.890.049
2.	Medical Record	959.215.042	9.	Equipment Maintenance Services	736.696.974
3.	HMIS Services	55.964.337	10.	The Building, Electricity, and Sanitation Maintenance Services	742.494.749
4.	Pharmaceutical services	1.139.116.492	11.	Cleaning and Garden Service	179.423.724
5.	Nutrition services	310.972.832	12.	Security Services	614.853.209
6.	Training and Development Research Services	424.669.587	13.	Waste Management Services	952.648.577
7.	CSSD Services	1.473.399.199			

Table 4 shows that the total indirect costs for each facility activity. There were 13 activity support units that support health services provided in the inpatient room. Based on the table above, the highest indirect costs was in management service activity support units (office) which IDR 7.397.647.784.

Indirect costs in facility activity in this study differ from the definition of indirect costs used in Noer Triyanto Rusli's (20) study that indirect costs were supporting costs in the form of building investment, operational costs and maintenance of supporting units including management. Likewise, according to Destanul Aulia, Sri Fajar Ayu, Nefonafratilova (4) that indirect costs were costs of outside the service borne by their own patients and families, including transportation costs, costs of lost productivity, and companion costs (accompanying patient by family members).

5. Imposing Indirect Costs in Facility Activity to the Production Unit

Imposing indirect costs on facility activities (non-production supporting units) of "MS" general hospital to production units consisting of Flamboyant Room, Bougenville Room, Mawar Room, Dahlia Room, Kemuning Atas Room, Kemuning Bawah Room, Wijaya Kusuma Room, Melati Room and Maternity Room through

the steps of calculating the rate per cost driver for each facility activity, and calculating the amount of indirect costs on facility activity that is imposed to all production units (inpatient rooms and other production units). The rate per cost driver per facility activity was obtained from the total indirect costs per facility activity divided by the number of cost drivers per facility activity. The amount of indirect costs imposed is obtained from the rate per cost driver for each facility activity to be imposed multiplied by the number of cost drivers per production unit that will get the impose. The calculation of the rate per cost driver for each facility activity and the amount of indirect costs for the facility activity imposed was described in the appendix because too much will be described.

Table 5. Total of Indirect Costs in Facility Activity That Imposed To the Production Unit

No.	Production Unit	Total of Indirect Costs in Facility Activity that Imposed to The Production Unit (IDR)	No.	Production Unit	Total of Indirect Costs in Facility Activity that Imposed to The Production Unit (IDR)
1.	Flamboyan Room	928.617.422	6.	Wijaya Kusuma Room	668.927.945
2.	Bougenville Room	825.112.143	7.	Kemuning Atas Room	611.931.559
3.	Mawar Room	415.972.766	8.	Melati Room	424.845.023
4.	Dahlia Room	348.544.628	9.	Maternity Room	189.426.694
5.	Kemuning Bawah Room	569.505.925			

Table 5 shows that the total indirect costs in the activity support units imposed to all inpatient rooms, the highest total was in the Flamboyan Room at IDR 928.617.422. While the lowest total indirect costs in the activity support unit which is imposed to all inpatient rooms was in the Maternity Room at IDR 189.426.694.

Imposing indirect costs in each facility activity to the production unit in this study is different from the method of imposing in Noer Triyanto Rusli's (20) study that the loading uses an allocation basis of 23.24% and it is not explained how the loading process.

6. Imposing Indirect Costs in Each Production Unit and Facility Activity to Each Type of Service per Production Unit

The total indirect costs per type of service in each production unit are described as a whole per unit of production in the inpatient of "MS" general hospital which consists of Flamboyant Room, Bougenville Room, Mawar Room, Dahlia Room, Kemuning Atas Room, Kemuning Bawah Room, Wijaya Kusuma Room, Melati Room and Maternity Room. The calculation process on imposing indirect costs to the production unit to each type of service per production unit and the imposition of indirect costs on facility activity to each type of service per production unit was described in the appendix because too much to be described.

Table 6 Average of Total Indirect Costs of Whole Types of Services per Production Unit

No.	Production Unit	Average of Total Indirect Costs of Whole Types of Services per Production Unit (IDR)	No.	Production Unit	Average of Total Indirect Costs of Whole Types of Services per Production Unit (IDR)
1.	Flamboyan Room	6.827	6.	Wijaya Kusuma Room	20.755
2.	Bougenville Room	6.003	7.	Kemuning Atas Room	8.043
3.	Mawar Room	9.504	8.	Melati Room	13.836
4.	Dahlia Room	10.938	9.	Maternity Room	9.331
5.	Kemuning Bawah Room	21.559			

Imposing indirect costs in each unit of production and facility activity to each type of service per production unit in this study was different from the method of imposing in the Noer Triyanto Rusli research (20) that indirect costs were not imposed in each production unit because that indirect costs were categorized as direct costs, while there was also no imposing of indirect cost in activity facilities (supporting units) to each type of service per production unit because the costs that calculated was only service costs in one unit of production, for example, hemodialysis service costs.

7. Recapitulation of Direct Costs and Indirect Costs and Proportions in Percentages

The recapitulation of direct costs and indirect costs per type of service in each production unit was described as a whole per production unit in the inpatient of "MS" general hospital which consists of Flamboyant Room, Bougenville Room, Mawar Room, Dahlia Room, Kemuning Atas Room, Kemuning Bawah Room, Wijaya Kusuma Room, Melati Room and Maternity Room. The direct costs and indirect costs per type of service in each production unit, and the percentage were described in the appendix because too much will be described.

Table 7. Recapitulation of Direct Costs and Indirect Costs and Proportions in Percentages

No.	Production Unit	Average of Total Direct Costs of Whole Types of Service Per Production Unit		Average of Total Indirect Costs of Whole Types of Services per Production Unit	
		IDR	%	IDR	%
1.	Flamboyan Room	111.566	94,36	6.827	5,64
2.	Bougenville Room	123.837	93,89	6.003	6,11
3.	Mawar Room	72.624	89,75	9.504	10,25
4.	Dahlia Room	143.434	92,08	10.938	7,92
5.	Kemuning Bawah Room	125.747	78,34	21.559	21,66
6.	Wijaya Kusuma Room	91.340	76,84	20.755	23,16
7.	Kemuning Atas Room	117.566	90,69	8.043	9,31
8.	Melati Room	63.479	82,51	13.836	17,49
9.	Maternity Room	97.588	88,31	9.331	11,69
	Average in Overall Inpatient Rooms	105.242	87,42	11.866	12,58

Table 7 shows that the highest proportion of average of total direct costs was in the Flamboyan Room with a proportion of 94.36% or IDR 111.566. The lowest proportion of average of total direct costs was in the Wijaya Kusuma Room with a proportion of 76.84% or IDR 91.340. But the proportion of average of total indirect costs in the Wijaya Kusuma Room with a proportion of 23.16% or IDR 20.755 was the highest proportion of average of total indirect costs. While the lowest proportion of average of total indirect costs was in the Flamboyan Room with a proportion of 5.64% or IDR 6.827. Proportion of the average percentage of direct costs and indirect costs in the overall inpatient room was 87.42% or IDR 105.242 and 12,58% of Rp. 11.866. Research conducted by Noer Triyanto Rusli (20) showed that direct costs amounted to 76.76% and indirect costs amounted to 23.24%. In this calculation, direct costs consist of consumable medical materials, investment costs, operational costs and maintenance costs in the production unit, while indirect costs consist of investment costs, operational costs and maintenance costs in non-production supporting units.

4. CONCLUSION

The conclusion, direct cost had role higest in unit cost calculation based on ABC. Direct cost were higher than indirect cost on unit cost. Overall, proportion of direct cost and indirect cost was 87,42 % and 12,58 %. Proportion direct cost and indirect cost been used to compare real cost and INA CBGs tariff. This study recommends that: 1) the boundary equation between direct and indirect costs needs to be done, especially in calculating unit costs using the ABC method, 2) the determination of INA CBGs tariff must be above direct costs so that hospitals can cover the minimum operational costs incurred for direct services to patients, 3) hospitals should determine rational tariff, namely based on direct costs and non-direct costs (unit cost) so as not to sacrifice the community, especially patients and families.

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