

Conference Paper

The Implementation of INA-CBGs System Impact on Financial Performance of Public Hospital, the Indonesia Case: A Systematic Review

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Abstract

Indonesia started the national health insurance system on 1 January 2014. In this system, there is only one insurer institution, BPJS Kesehatan, a social security agency established by the government to provide health insurance for Indonesian people. This new national health insurance system pays all claims based on package system called Indonesia Case-Based Groups (INA-CBGs). The aim of this review is to describe the application of the INA-CBGs system and its effect on financial performance of the public hospital and helping them in identifying and anticipating problems in implementation of the INA-CBGs system. This review shows prism flowchart using Proquest and Portal Garuda with INA-CBGs, public hospital finance performance, universal health coverage, and Indonesia as the keywords. From the 15 selection research journals, we found that the implementation of the INA-CBGs system with the prospective payment system can provide a positive impact on the financial performance in public hospital, when the hospital could reduce inefficient cost of treatment. Furthermore, public hospitals achieve a surplus since they receive a donation from the government for salary expenses and investment-related expenses. Public hospital management in Indonesia should consider the competence of their accounting and financial managers so they can manage their hospitals properly. Each public hospital management must have a strategy and innovation to improve the quality of service so they can compete with other hospitals and financial performance can be improved in this JKN era.

Keywords: INA CBGs, Public Hospital financial performance, universal health coverage, Indonesia

1. Introduction

During the past few years, there is a growing momentum toward the Universal Health Coverage (UHC) at the global level. UHC, or sometimes called universal coverage, is defined by the World Health Organization as ensuring that all people obtain the health

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Received: 17 October 2018
Accepted: 5 November 2018
Published: 5 December 2018

Publishing services provided by
Knowledge E

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Selection and Peer-review under the responsibility of the 2nd ICHA Conference Committee.



services they need of sufficient quality to be effective, without suffering financial hardship when paying for them [1].

According to the report of the Sustainable Development Solutions Network (SDSN), by 2030, every country should be well positioned to ensure universal health coverage for all citizens at every stage of life, with particular emphasis on the provision of comprehensive and affordable primary health services delivered through a well-resourced health system [2].

–Since the 2005 resolution, universal health coverage has been increasingly seen as a central plank in the articulation of new health-sector strategies in countries. While middle-income countries, including Thailand and many in Latin America, have paved the way, countries such as China, India, Indonesia, and Vietnam are quickly gaining steam – politically and technically – to achieve universal health coverage [3].

The Universal Health Coverage embodies three related objectives, the first is equity in access to health services, the second is good quality of health services and last but not least, financial-risk protection. Universal Coverage is firmly based on the WHO constitution of 1948 declaring health as a fundamental human right. In Indonesia, Universal Health Coverage is relevant to the 1945 constitution or Undang-Undang Dasar 1945 (UUD 45), article 28. Health is a basic right of every individual and all citizens are entitled to health services including the poor. The passing of laws (Undang - Undang No. 40 tahun 20014) about SJSN (Sistem Jaminan Sosial Nasional) is a strong evidence that government and relevant stakeholders has a major commitment to realize social welfare for all people [4, 5].

Indonesia has reformed its national health insurance scheme. The new national health insurance scheme started on January 1st, 2014. In the new system, there is only one insurer institution, National Social Security Agency (*Badan Penyelenggara Jaminan Sosial/BPJS*), a public agency established to implement the social security program. Based on Undang - Undang No. 24/2011 BPJS will replace a number of institutions of social security such as health insurance agency *Perseroan Terbatas Asuransi Kesehatan Indonesia* changed to *BPJS Kesehatan* (National Health Security Agency) and social security institutions on employment social security, *Perseroan Terbatas Jaminan Sosial Tenaga Kerja* also converted into *BPJS Ketenagakerjaan* (National Employment Security Agency). The government hopes eventually the entire Indonesia citizen can become a participant of social security system.

The new national health insurance scheme pays all claims based on package system called Indonesia Case-Based Groups (INA-CBGs). Hospitals will receive payments

based on INA CBGs rate which is the average amount spent by the group for a diagnosis. The amount of the bill for the diagnosis had been organized and endorsed by the Minister of Health Regulation No. 64 Year 2016 on the Amendment Regulation of the Minister of Health No. 52 Year 2016 on Standard Rates in the Implementation of Health Care Insurance Program.

INA CBGs is a continuation of application INA DRG whose licenses expire at the end of 2010 and continues to be improved. The application system adopts a more refined DRGs, which is a type of prospective payment, system of payments to health service facility, either a hospital or a doctor in the amount set before a service is provided without regard to the action taken or the duration of treatment. It is expected the hospital should be able to manage costs effectively in every provision of health care to patients.

From some research journals that are used as reference, the implementation of the INA CBGs system with the prospective payment can provide a positive impact on the financial performance at public hospital, when the hospital could reduce the cost of treatment is not effective.

–Implementation of INA CBGs payment system cannot escape the impact of the Financial hospital. The results showed that it had a positive impact on the financial aspects, namely the income hospitals can already covered all needs and operational expenditure with income derived from the implementation of the INA-CBGs, including from purchasing the drug has begun to be resolved, the food inpatients, maintenance is already entered. [6]

In order to analyse whether hospital under PPS (Prospective Payment System) combined with DRG Systems are more cost-efficient than hospitals under RPS (Retrospective Payment System). [7]

However, there was one article saying that the public hospital in Indonesia only has about 5% of accounting and finance personnel who are competent so that they have the wrong perception about the hospital's surplus in this era JKN [8].

Based on some of the issues that use for this systematic review, the aim of this article is to describe the implementation of the INA CBGs system and its effect on public hospitals' financial performance. It is expected to help public hospitals in identifying and anticipating problems in the INA CBGs system implementation.

2. Methods

2.1. Search strategy

This systematic review is using PRISMA-P protocols. There are two steps of searching strategies in this review.

First, articles were searched by keywords Public Hospital Finance Performance, –Universal Health Coverage Indonesia in online database Proquest. For articles in Indonesia, keywords—*INA CBGs* and — *kinerja keuangan rumah sakit umum* were used in Portal Garuda and Google Scholar. Second, reference list Regulation of Indonesia Health Minister about INA CBGs policy then assessed based on title. If those hand-searched articles were suitable, they were included for review. Searching process is done within time frame 1st January 2010 – 16th November 2016, with English and Indonesian language restriction.

2.2. Filtering process

There were 24.975 articles found from all search engines and 3 articles hand searched. The first restriction is filtered by year, period of 2010 – 2016, and by choosing academic journal articles, dissertation or thesis because most of Indonesian researchers are in the form of the latter. The remaining 2422 articles were screened by adding second keyword—DRG Systems for Public Hospital Finance Performance and—Universal Health Coverage Indonesia. After that 337 articles were screened by title and next 51 articles were screened by abstract. Fifteen (15) articles deemed relevant were then searched for full-text and assessed for its eligibility. Articles excluded about UHC but not offensive about DRGs/INA CBGs, then included have aims or conclusions in accordance with the aims of this systematic review. Final 9 articles were included for qualitative synthesis. The selection process could be seen in Figure 1.

3. Results and Discussion

3.1. Universal health coverage in Indonesia

Universal Health Coverage in Indonesia is called National Health Insurance or *Jaminan Kesehatan Nasional (JKN)* which is a form of government commitment to the implementation of the health security of the Indonesian people. JKN which developed in Indonesia is part of the Social Security System National (*Sistem Jaminan Sosial Nasional/SJSN*) which organized through the mechanism of the Mandatory Social Health Insurance

TABLE 1

No.	JOURNAL TITLE	AUTHORS	METHODS	VARIABLE	RESULT	ANALYSIS
1.	Hospital Financial Performance in the Indonesian National Health Insurance Era	Ambarriani, A. S.	Case Study Research by examining the hospital financial reports and interviewing deeply hospital's management teams.	National Health Insurance, INA-CBG's, Hospital financial Performance	<ul style="list-style-type: none"> In each severity level of cases and classes, both outpatient cases and inpatient cases, the claims under the JKN are higher than under the hospitals' rate. According to this, public hospitals' managers assume their financial performance would be better but they have a wrong perception about the definition of surplus in JKN era. The hospitals' revenues could not cover their costs entirely, but the public hospitals in Indonesia reported surplus in their financial report. In public hospitals, there are only 5.10% accounting and financial managers who have a master's degree in accounting. In the future, public hospitals can be managed as a BLU, in which there is flexibility for managers to manage the hospitals' finance. 	<ul style="list-style-type: none"> By using a prospective payment system is expected that the public hospital manager can determine more accurately the type of resources to treat particular group and to predict the cost of the treatment Most of public hospitals in Indonesia do not have competent finance and accounting managers so they have a wrong perception. Some factors that can make a surplus in public hospital's finance are: <ul style="list-style-type: none"> most of employee's salaries are paid by Indonesian government valuable fixed assets are supported by the government don't have depreciation cost
2.	Does prospective payment increase	Widmer, Philippe K.	Using a sample of approximately 90 public	Hospital inefficiency, Prospective payment	<ul style="list-style-type: none"> Mean inefficiency decreases from 0.066 (Standard Frontier Model/SFM) to 0.049 (Random Parameter Frontier Model/RPFM), implying that on average only a cost Reduction of 5% may be achievable. Prospective payment is associated with an increase in hospital cost efficiency. If combined with DRG classification, it is found to have maximum efficiency-enhancing effect, if combined with a per diem element, incentives for cost minimization are weakened because hospitals may increase length of stay. 	<ul style="list-style-type: none"> In order to analyse whether hospital under PPS combined with DRG Systems are more cost-efficient than hospitals under RPS, then specific inefficiency scores must first be derived from estimated cost frontiers using two specifications serve to check for the importance of unobserved heterogeneity among hospital (SFM and RPFM). Evidently, SFM is not able to detect the true effect of prospective payment on inefficiency. Therefore, assumptions regarding hospitals' production technology (SFM versus RPFM) are of crucial importance in the Swiss case. Second, Prospective payment designed to be effective in reducing hospital cost compared, because with retrospective payment, hospitals will renegotiate to claim unexpected cost increases during treatment.

No.	JOURNAL TITLE	AUTHORS	METHODS	VARIABLE	RESULT	ANALYSIS
3.	Hospital payment systems based on diagnosis- related groups: experiences in low- and middle-income countries	Mathauer, Inke Wittenbecher, Friedrich	A literature research for papers on DRG-based payment systems in low- and middle- income countries was conducted in English, French and Spanish through Pubmed, the Pan American Health Organization's Regional Library of Medicine and Google.	Hospital Payment Systems, Diagnosis Related Groups	<ul style="list-style-type: none"> •The greater portion of health-care financing should be public rather than private •It is advisable to pilot systems first and to establish expenditure ceilings •Countries that import an existing variant of a DRG-based system should be mindful of the need for adaptation •Countries should promote the cooperation of providers for appropriate data generation and claims management 	<ul style="list-style-type: none"> •To choose the design implementation of DRG system is depend on the specific country context, the influence of external funding agencies, the degree of regional cooperation and exchange with neighbouring countries, and the time when the system is introduced. •Overall they face challenges such as a decrease in average length of stay and no increase in hospital admissions, but there was an increase in inpatient expenditure per case.
4.	Exploring the transition to DRGs in Developing Countries: A case study in Shanghai, China	Wang, Zhaoxin Liu, Rui Li, Ping Jiang, Chenghua	Using multiple linear regression analysis	Diagnosis Related Groups, Payment, Hospitals, China, Hypertension, Coronary Heart Disease.	<ul style="list-style-type: none"> •Conditions in developing countries are not up to the management requirements to fully realize DRGs. •To implement DRGs successfully, developing countries such as China have to prioritize its steps. Starting with definition of the objectives of the DRG system, the most common diseases in each disease group should be first targeted so as to formulate pricing standards for each disease group and increase the feasibility of implementing DRGs. 	<ul style="list-style-type: none"> Studying the limited diseases within each disease group and the key factors influencing medical expenses of these diseases, as well the simplification of DRGs standard-setting standardized clinical pathways and accurate costing, will greatly increase implementing DRGs in developing countries.
5.	Perbandingan Biaya Riiil Dengan Tarif Paket INA CBGs dan Analisis Faktor Yang Mempengaruhi Biaya Riiil Pada Pasien Diabetes Mellitus Rawat Inap Jamkesmas di RSUP Dr. Sardjito Yogyakarta	Ratih Pratiwi Sari	Analytical observation. The data were taken retrospectively from the Jamkesmas claim files and patients' medical record.	Real cost, Diabetes mellitus, Jamkesmas patient	<ul style="list-style-type: none"> •The result of the study showed that there is a difference between the real cost and INA-CBGs package tariff of the diabetes mellitus Jamkesmas patients based on the severity level. •The factors that affect the real cost of treatment of patients with the severity level II were cost of clinical pathology examination, blood, and drug/medical cost, while in patient with severity level III were the cost of visit, service in dialysis department, clinical pathology examination and drug/medical cost. 	<ul style="list-style-type: none"> •The cost of drugs given to patients have the largest share in determining the difference of real cost and INA CBGs rate. Other factors like supporting examination completeness of medical records can also affect the rate difference. •The difference of the real cost and INA CBGs rates can be positive if the hospital can reduce the cost of drugs and other investigations that led to the total cost of treatment was reduced.

No.	JOURNAL TITLE	AUTHORS	METHODS	VARIABLE	RESULT	ANALYSIS
6.	Studi Penerapan Sistem Pembayaran Layanan Kesehatan Dengan Sistem Diagnosis Penyakit (Indonesia Case Based Groups/INA-CBGs) di Ruang Rawat Inap Rumah Sakit Umum Bahteramas Kota Kendari Tahun 2015	Wunari, Dina Ode, Wa Rabbani, Siti Sabril, Karimuna	The method of study was qualitative study with phenomeno-logical approach through in-depth interviews with informants.	INA-CBGs Payment System, Bahteramas Public Hospital of Southeast Sulawesi Province	The results showed that the Bahteramas Public Hospital of Southeast Sulawesi Province in the implementation in 2015 has begun the significantly change to be better and optimal, including adequate human resources with good skills in every duty, medical records has begun equipped to the appropriate time, the target, and regulations which set forth by hospital management, facilities also available according to the needs in the INA-CBG system, and hospital revenue that increased in quantity compared to previous years.	<ul style="list-style-type: none"> -In the implementation of INA CBGs payment system, is influenced by human resources who are competent and capable of using the application of INA-CBGs, including administrative officers, in addition to supporting facilities should also be considered. -Implementation of INA-CBGs payment system have positive impact to the Financial hospital, where the revenue of the hospitals has been able to reach all needs and operations cost, including the purchase of drugs have started to resolve, food inpatients, maintenance was already entered. -Strategies that do hospital to increase revenue and achieve implementation of INA-CBGs that is effective is to provide and add the latest services in accordance with the needs in public services such as dialysis, so that patients no longer need to be referred to Makassar, and also accelerate the physical development and improve the new service, so that this can increase the income of the hospital, because the level of patient visits increase.
7.	Evaluasi Penerapan Jaminan Kesehatan Nasional (JKN) di RSUD Dr. Moewardi Surakarta	Sri Wahyuningih Nugraheni	This study is a qualitative research with Grounded Theory approach	Health care aspect, membership aspect, tariff aspect, Jaminan Kesehatan Nasional (JKN)	The application of JKN from aspects of participation in Hospital Dr. Moewardi Surakarta that patients who receive all types of health insurance, either from JKN, Jamkesda Surakarta (PKMS) and other commercial health insurance. From the aspects of health care, in hospitals Surakarta provide the type of service and premium-class treatment in accordance with their respective health insurance. And from the aspect of service rates, Hospital Dr. Moewardi Surakarta use case-mix system (CBG's INA system) for the JKN's rate	<ul style="list-style-type: none"> Evaluation of the application of the system JKN raised three main issues, namely grade 3 treatment rooms are often full, there are limits of service for each type of health insurance, and one way of controlling patient JKN with INA CBGs system is the administration of drugs adapted to the National Formulary (Fornas) for participants JKN

No.	JOURNAL TITLE	AUTHORS	METHODS	VARIABLE	RESULT	ANALYSIS
8.	The Role of Health Information Management Professionals in The Implementation Of INA CBGs in BLUD RSU H. Boejasin Pelaihari	Dedy Kurniawan, Hosizah	The descriptive research study. Population: all of the health workforce involve in INA CBGs implementation. Sample are coder and Independent verifier. An interview guide and checklist were used as instrument for observation and interview	Health Information Management, INA CBGs Medical Record, Reimbursement Process, Coder	Claim Procedures of INA CBGs systems in BLUD RSU H.Boejasin Pelaihari involving various fields ranging from the service, medical record, part Jamkesmas up to the independent verifier. The procedures is not accordance with the implementation of the prospective payment claims, a lot of repetition of activities that can slow down the process of claim.	Based on the new paradigm of medical records into MIK then the role of professional and MIK unit are: increase hospital revenue potential by ensuring accurate coding and supported by quality documents. The second increase cash flow by prioritizing process hospital claims were denied and appeal if necessary.

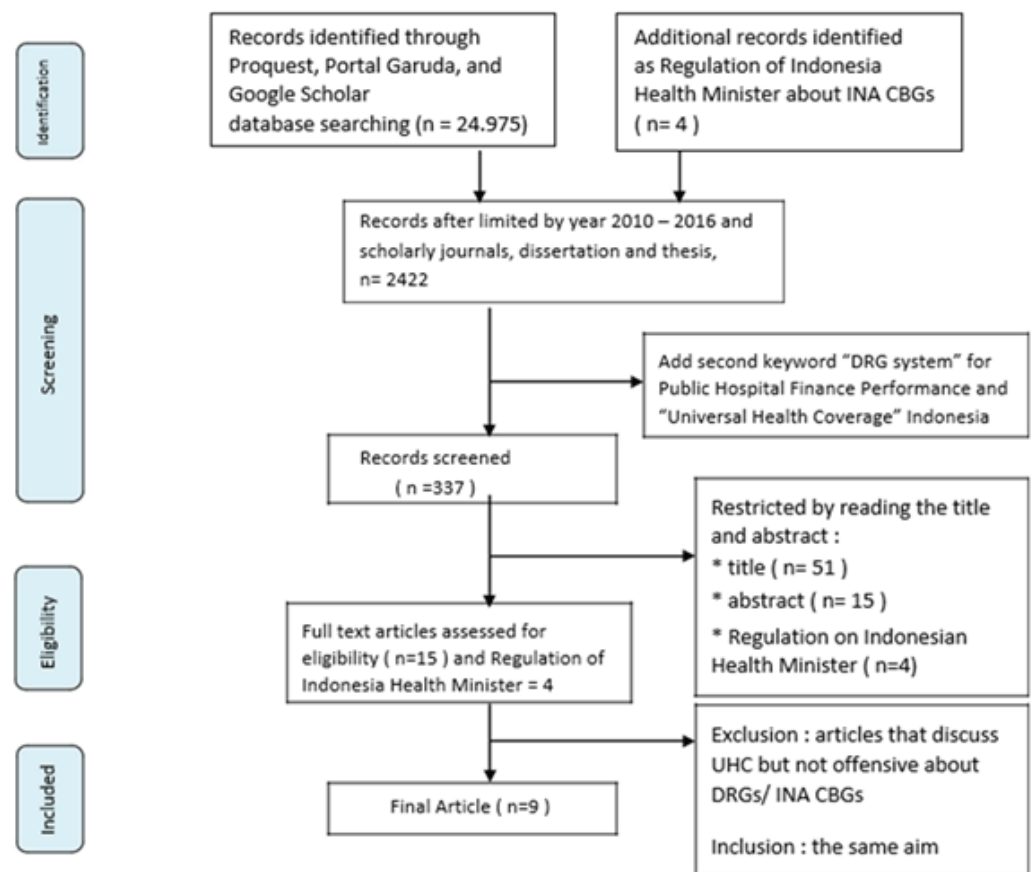


Figure 1: Flow chart of study selection.

based on Law No. 40 of 2004 about *Sistem Jaminan Sosial Nasional*. The goal is for all Indonesia's population is protected in the insurance system, so that they can meet the basic needs of public health.

According to JKN socialization handbook in the national social security system, the National Health Insurance is managed by the principle:

1. Mutual cooperation. With all participants the obligation to pay contributions, there will be the principle of mutual cooperation where the healthy help the sick, the rich help the poor
2. Non-Profit. Social Security Agency is not allowed to make a profit. The funds collected from the public is a trust fund, so that the development should be utilized for the benefit of participants.
3. Openness, cautions, accountability, efficiency, and effectiveness. This management principle underlies the whole management of funds derived from contributions of participants and the results of development

4. Portability. This principle ensures that even the participants settle in a new place or a new job, as long as the territory of the Republic of Indonesia will still be able to use their rights as participants JKN
5. Participation is mandatory. All people become participants so that they can be protected. Application remains adjusted to the economic capacity of the people and government as well as the feasibility of the implementation of the program.
6. Funds Mandate. Funds collected from participants' contributions are funds deposited by administering body to be managed as well for the sake of the interests of the participants.
7. The results of the management of social security funds are used entirely for program development and for the great interests of participants.

Evaluation of JKN in public hospitals can be seen from the aspect of membership, aspects of health care services and tariffs, several problems are found in this transition period, including the discovery of restriction of services to any type of health insurance, third ward who often have queuing and type of drugs given only contained in the National Formulary only. However the internal policies set by the hospital management that still refer to the principles of mutual aid of JKN, is a solution that remain underserved patient without causing any damages to the hospital's financial and avoid up coding and fraud [9].

3.2. The prospective payment

There are two methods of payment used for hospital that is retrospective and prospective payment method. Retrospective payment recompenses healthcare providers based on their actual charges. With a retrospective payment, a provider will treat a patient and submit an itemized bill to an insurance company detailing the services rendered. The primary benefit of retrospective payment is that they may allow patients to receive more attentive because there is no limitation of approved treatment plans for providers, they can adjust their services to meet patients' needs individually [7].

On the other hand, prospective payment works by assigning a fixed payment rate to specific treatments. While these rates might change over time because of factors such as inflation, they are not adjusted to accommodate patients individually. Under prospective payment, a healthcare provider will always receive the same payment for providing the same specific type of treatment.

The previous researches obtained that Prospective Payment System intends to motivate providers to deliver patient's health care effectively and efficiently. This approach assumes that the degree of care required (case intensity) is a function of the patient's diagnosis and the payment to the provider should be based on the intensity of care [8].

As it was shown in article –Does prospective payment increase hospital (in)efficiency? Evidence from the Swiss hospital, the effectiveness of prospective payment in reducing hospital cost inefficiency are found, particularly with payment per patient case. Prospective payment is more effective in terms of cost reduction than the retrospective alternative [7].

One of the prospective payment approach is the case-mix group system. A case mix group (CMG) is used for inpatient classification system to group patients with similar characteristics together. This provides a basis for describing the types of patients or other health care provider treatments (its case mix). The development of case-mix system is diagnosis-related group system.

3.3. The INA-CBGs system

The Diagnosis-Related Groups (DRG) were developed in 1982 by Robert Fetter from Yale School of Management and John D. Thomson from Yale School of Public Health. The system is used to help a hospital manager controlling the physician's behaviour.

A Diagnosis-Related Group (DRG) is a statistical system of classifying any inpatient stay into groups for payment purpose. The DRG classification system divides possible diagnoses into more than 20 major body systems and subdivides them into almost 500 groups for the purpose of Medicare reimbursement. Although DRG-based payment systems are now mainly understood as a reimbursement mechanism, the original purpose was to enable performance comparisons across hospitals [10]. DRG classification system is grouped according to principal diagnosis, type of treatment, age, surgery, and discharge status [11].

Diagnosis Related Groups (DRGs) are one of the most striking prospective payment systems around the world in recent years, since implementation of universal health coverage, which booming in the world, uses a system of claims based on DRG systems [11]. This system allows hospital managers to determine more accurately the type of resources to treat a particular group and to predict the cost of the treatment. Similar to the case mix group, this system is applied as an insurance payment system. In this system, patients are classified based on the groups of diagnosis, then that groups

are coded by using a DRG software. Next, the diagnosis codes are translated into the payment that must be compensated by insurers.

In Indonesia, Diagnosis-Related Group system was implemented in 2010, called the INA-DRG's. In this system, hospitals were paid a set fee for treating patients in a single INA-DRG category, regardless of the actual cost of care for the individual. The INA-DRGs represented groupings diagnosis of the ICD-9-CM codes into a more manageable number of particular patient categories. ICD-9-CM is the International Classification of Diseases. In 2011, Indonesia changed the name of the system into the INA-CBG's system. However, the principle of the system is very similar to the old INA-DRG's.

3.4. INA-CBGs rate

According to health ministry regulation, *Peraturan Menteri Kesehatan No 64 tahun 2016 tentang Perubahan Peraturan Menteri Kesehatan No 52 tahun 2016 tentang Standard Tarif Pelayanan Kesehatan dalam Penyelenggaraan Program Jaminan Kesehatan*, hospitals' health services rate includes INA-CBGs rate and Non-INA-CBGs rate.

INA-CBGs rate is package rates that include all the components of hospital resources used in the service of both medical and non-medical, the rates will not be affected by the days of treatment. On the other hand, Non-INA-CBGs rate is rates for some specific services such as health equipment, chemotherapy drugs, chronic disease drugs, Continuous Ambulatory Peritoneal Dialysis (CAPD) and Positron Emission Tomography (PET) scans. The method of determining cost using the INA-CBG's system implemented by the hospital and the payer (government represented by BPJS) no longer specify the charges based on the details of the services provided but based on several important data, namely:

1. DRG codes (Disease Related Group)
2. Diagnosis outpatient without involving the number of days of treatment (length of stay).
3. Regional Hospital (regional 1-5)
4. Qualifying hospitals (national referral, class A-D)

3.5. Hospital finance performance

Hospital must provide good quality health care to make sure the goals of universal health coverage could be achieved efficiently and effectively. In order to be able to

give good quality services, hospitals need to be financially healthy. Financing capability represent a vital element of competitive advantage [12]. The hospitals' revenue is collected from services given to their patients. To serve their patients, hospitals spent money for materials, human resources and equipment. In order to be able to survive and make some development, hospitals need to cover all costs they spend. Some surplus is also expected to improve the services. A Surplus is the differences between revenues and costs in a same accounting period. A surplus is one way to figure out a hospital financial performance [8].

Public hospital is an institution under the supervision of local governments engaged in the public sector by giving health services. Health services provided by hospitals common areas are social and economic with more priority health care for the community. Public hospital as one government agency should be able to provide accountable both financially and non-financially local government and the community as service users.

In this type of organization, public hospitals can be managed as a business organization with flexibility in financial management based on productivity and effectiveness [8]. The key points of accrual accounting include the following:

1. Income (revenue) is earned when services are provided.
2. Expenses are the costs of providing material and service to the parties that receive the service, when the service is being provided.
3. The timing of when an organization gets paid for the services they renders, or when they pay for the materials and services they purchase, it is irrelevant to the accrual accounting method. Cash flow is a separate issue for consideration. (building, equipment and other fixed assets) are
4. Costs of fixed assets (building, equipment and other fixed assets) are recognized by allocating their costs over their estimated useful life.
5. The accurate measurement of profits or losses depends upon the correct matching of services provided and the costs of providing these services.

Most of journals that are used as references say that there is a significant difference of INA-CBGs rates in each hospital. Some journals state that an increase in the financial performance of the hospital when using INA CBGs system, as in –Hospital Financial Performance in the Indonesian National Health Insurance Era. The research compares average claim in hospitals under hospital rate and INA-CBG's rate for the period of

January-April 2014 and found in each severity level of cases and classes, INA-CBGs claims is higher than hospital rate claims. In both outpatient cases and inpatient cases, the claims under the JKN are higher than under the hospitals' rate.

Another article, *Perbandingan Biaya Riil Dengan Tarif Paket INA CBGs dan Analisis Faktor Yang Mempengaruhi Biaya Riil Pada Pasien Diabetes Melitus Rawat Inap Jamkesmas di RSUP Dr. Sardjito Yogyakarta*, shows that the average value of hospital charges for treatment patients with the severity level I are much lower compared with rates of INA package CBG's. In contrast, patients with severity level II and III has the average value of the hospitals charges that are larger than INA rates CBG's. Because of diversity of comorbid types experienced by patients with diabetes mellitus, the cost of needed drugs tend to give greater impact on total costs of treatment. One way to overcome the difference in costs is making a clinical-pathway which contain detailed essential steps to handle the patients, it consists of protocol therapy and the standard care ranging from admission to hospital discharge [13].

This new payment system can increase hospital efficiency so it will improve the financial performance as written in –Does prospective payment increase hospital (in)efficiency? Evidence from the Swiss hospital sector journal. If combined with DRG classification, it is found to have maximum efficiency-enhancing effect [7].

There are still many challenges faced by public hospitals in this transitional period, such as a decrease in average length of stay and no increase in hospital admissions if they could not control the treatment cost, patient could not choose the type of service, the drug given must be listed on national formularium (Formularium Nasional/Fornas), human resources which are not capable in participating in this application system changes. However, the manager of the hospital should be able to address these challenges by conducting innovation using information system and technology, increasing hospital facilities to meet public demand, enhancing of hospital physical development, adding new types of services and confirming that the medical record is complete, timely and accurate.

4. Conclusion

In the National Health Insurance (JKN) system, there is only one method of payment. It is a package system and based on the INA-CBG's rate. The system change influences the hospitals' financial performance. The prospective payment (INA-CBGs systems) generates more financially surplus generally, more effective in terms of cost reduction through the elimination of non-value adding activities.

Each public hospital management must have a strategy and innovation to improve the quality of service so they can compete with other hospitals and financial performance can be improved in universal health coverage era.

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