

Standard Inpatient Class Policy in Hospital: Opportunities and Challenges (Systematic Literature Review)

Andreas Erick Haurissa

Master Program in Management, ARS University
aehaurissa@gmail.com

Jones Vita Galuh Syailendra

Master Program in Management, ARS University
jonesvita96@yahoo.co.id

Endah Futihatul Fajriyah

Master Program in Management, ARS University
daw.ffa@gmail.com

Zakiyatun Murtafiah Hamzah

Master Program in Management, ARS University
zakiya_athun@yahoo.co.id

Purwadhi Purwadhi

Master Program in Management, ARS University
Bandung, Indonesia
purwadhi@ars.ac.id

Rian Andriani

Master Program in Management, ARS University
rian_andriani@ars.ac.id

Abstract

Presidential Regulation Number 59 of 2024 concerning health insurance mandates that the implementation of inpatient services based on standard inpatient classes in hospitals collaborating with BPJS Health no later than June 30 2025. According to the KRIS implementation road map, by 2024 it is hoped that 2,432 hospitals will be ready and As of February 4 2024, there are 1,053 hospitals ready. The aim of the research is to provide an overview of the opportunities and challenges faced in implementing KRIS, with an analysis of how implementing KRIS can improve the quality of health services and overcome gaps in access and other challenges faced in the transformation process. The research used the Systematic Literature Review (SLR) method and to select article findings, the PRISMA method was used. The research conclusion is that the standard inpatient class policy in hospitals has great potential to improve the accessibility and quality of health services, but its implementation requires strong support from various parties, including the government, hospitals and the community. Some of the main challenges in implementing the KRIS policy are limited resources (infrastructure, equipment, human resources), operational costs, differences in patient financial capabilities and gaps in access and quality of health services.

Keywords: Policy, Hospital, Inpatient.

I. INTRODUCTION

The National Health Insurance (JKN) inpatient class policy is a mandate of Law Number 40 of 2004 concerning the National Social Security System which must be implemented based on the principle of equity. As JKN progresses, there is an increase in access to health services for JKN participants as indicated by the increase in the number of utilization of inpatient hospital services. On the other hand, the challenges faced are related to fulfilling the equity principle. The existence of treatment class classifications that are not yet standardized and unequal access to health service facilities, availability of health workers and medicines in all regions has prompted the need to create standard inpatient class criteria aimed at improving the quality and equity of JKN services.

Philosophically, the concept of the national health insurance standard inpatient class (KRIS JKN) is to ensure equality of both medical and non-medical services for the same disease, standardized amenities or comfort based on applicable laws and regulations and based on existing guidelines, but still provide space to increase benefits (by moving up in class) according to established regulations. Based on this, KRIS JKN is a class of hospital inpatient services in the JKN program which is covered by the Health Social Security Administering Agency (BPJS) by standardizing the minimum JKN inpatient class through

12 criteria that must be met by hospitals, leading to a single class, which Prioritizes patient safety and Infection Prevention and Control (PPI) standards, and it is possible to upgrade to a class other than PBI for self-funding, employer or additional health insurance. The 12 standard criteria for KRIS treatment room facilities include 1) building components do not have a high level of porosity; 2) air ventilation; 3) room lighting; 4) completeness of the bed; 5) Nightstand per bed; 6) room temperature; 7) treatment rooms are divided based on gender, children and adults, as well as infectious and non-infectious diseases; 8) density of treatment rooms and bed quality; 9) curtains / partitions between beds; 10) bathroom in the inpatient room; 11) bathroom meets accessibility standards and 12) oxygen outlet.

As per the policy contained in Presidential Regulation Number 59 of 2024 concerning the third amendment to presidential regulation Number 82 of 2018 concerning health insurance, it is stated that the implementation of treatment room facilities in inpatient services based on standard inpatient classes is implemented comprehensively for hospitals that collaborate with BPJS Health no later than June 30 2025. Meanwhile, in the period before June 30 2025, hospitals can provide some or all inpatient services based on standard inpatient classes according to the hospital's capabilities.

Standard inpatient classes are regulated in Minister of Health Regulation no. 4 of 2018 concerning Hospital Obligations and Standard Inpatient Classes,

with the aim of guaranteeing that each hospital assigns a minimum of 40% of its total beds to standard inpatient classes. However, implementing this policy is not easy, especially because many hospitals have limited resources, whether it is a limited number of medical personnel or a lack of adequate physical facilities. Based on data from the Ministry of Health, in 2020, around 60% of hospitals in Indonesia will only comply with these regulations. (Indonesian Ministry of Health, 2020).

Based on online hospital data as of February 4 2024, currently there are 3,164 hospitals in Indonesia and 3,039 hospitals have completed the KRIS implementation readiness self-assessment survey on January 20 2024. The survey results show that as many as 681 hospitals (22%) have not yet met KRIS criteria, 37 hospitals (1%) met criteria 1 - 9, 25 hospitals (1%) met criteria 1 - 10, 63 hospitals (2%) met criteria 1 - 11 and 2,233 hospitals (74%) met criteria 1 - 12. According to the KRIS implementation roadmap, by 2024 it is hoped that 2,432 hospitals will be ready and the realization as of February 4 2024 is that there are 1,053 hospitals ready to implement KRIS.

Additionally, these policies face funding challenges. The operational costs of providing standard inpatient services are often not commensurate with the rates set by the government, so many hospitals experience deficits. For example, according to a study by the Center for Research on Economics and Health Policy, University of Indonesia, the average operational cost per bed per day in a Class B Hospital is IDR 1,500,000, while the standard inpatient category rate is only IDR 600,000 (Center for Economic and Health Policy Research, University of Indonesia, 2019).

However, this policy also provides various opportunities to improve the quality of health services. For example, by setting minimum standards for facilities and services, it is hoped that the quality of services provided by hospitals can increase. This policy, among other things, encourages hospitals to manage existing resources more efficiently. For example, several hospitals in Jakarta have succeeded in increasing operational efficiency by implementing an information technology-based management system to optimize the use of beds and medical personnel (DKI Jakarta Health Service, 2021).

In response to the above, this article will explore the opportunities and challenges faced in implementing KRIS, with an analysis of how implementing KRIS can improve the quality of health services and overcome gaps in access and other challenges faced in this transformation process.

II. LITERATURE REVIEW

A. Standard Inpatient Class (KRIS) in Various Countries

Research on standard inpatient class policies has been carried out in various countries with varying results. In the existing literature we can summarize various standard inpatient class policies implemented by various

Standard Inpatient Class Policy in Hospital: Opportunities and Challenges (Systematic Literature Review)

countries, especially those covered by each country's social security policy. Several countries implement different policies so that there are very varied variations. Several countries have policies similar to KRIS, namely determining the types of treatment rooms that can be covered by their social security.

Table 1. Comparison of Standard Inpatient Classes in Other Countries

Country	Library Source	Explanation
Singapore	Singapore General Hospital, updated April 2024	Standard wards are divided into 4 types, namely: - Type C with up to 8 beds in one room - Type B2 with up to 6 beds in one room, with semi-automatic electric beds - Type B1 with up to 5 beds in one room, with private bathroom, with television, semi-automatic electric bed, and can choose food. - Type A with 1 own bed, with private bathroom, television, telephone, electric bed, can choose food, and rest area for the guard. Types B2 and C are subsidized classes covered by the government, but patients can upgrade their class by top-up to classes A and B1 which are privatized with their social security.¹
Canada	Grand River Hospital, no year	The Ontario Health Insurance Program (OHIP), a social security health program from Ontario, covers standard inpatient accommodation with four beds in one room. OHIP and the Medicare program do not cover costs beyond a standard inpatient room.
Switzerland	CERN Health Insurance Scheme, no year	A standard ward is defined as a treatment room that is shared with other people. Standard ward variations have between two and eight beds per room. In this scheme, patients cannot choose accommodation and doctors and only suit what is available. Standard wards in public hospitals will be covered entirely by Swiss social health insurance.
German	Esmail, 2013	The social health security system provides standard services including inpatient care. If participants who have an income above 50,850 euros want more services, for example a private room, they will not be covered by social security and must use private insurance.

B. Standard Inpatient Class (KRIS) in Indonesia

A number of evaluations have been carried out in Indonesia to assess the implementation of this particular policy. An important study conducted by the Institute for Research and Community Service at Gajah Mada University revealed that this policy has effectively increased the availability of health

services for underprivileged communities. However, it should be noted that there are still disparities in the quality of services provided by hospitals in urban and rural areas (UGM Institute for Research and Community Service, 2020).

The presence of a large number of skilled health workers is an important element in the successful implementation of this policy, according to research conducted by the Faculty of Public Health, University of Indonesia. This study highlights that health facilities that are equipped with adequate and trained staff have a higher probability of providing exceptional inpatient services and meeting quality standards (UI Faculty of Public Health, 2019).

1. Work Plan and Work Realization

BPJS Health provides two interpretations of the KRIS definition. The first interpretation, based on Law Number 20 of 2014, categorizes KRIS into three inpatient classes, namely class 1, class 2 and class 3. These classes must meet the standards set by the Standardization of Inpatient Rooms (SRRI) which includes patient safety, health equipment, infrastructure, comfort, and the number of beds available in each class, from class 3 beds to the presidential suite. Meanwhile, the second interpretation views KRIS as

a benchmark for the number of inpatient room classes, either one or two classes. (Kurniawati G, et al. 2021) From James D. Money's coordination theory by Inu Kencana Syafie, M.Si in Nurpeni et al, guided by government science books in terms of content and background, showing the need to develop plans and carry out IPSRS work to regulate matters relating to hospital infrastructure to ensure its effective performance. (Nurpeni, et al. 2021) Work realization is taking action or doing something in order to obtain or realize something that is planned or expected.

The implementation of KRIS with a number of classes of inpatient rooms can be carried out in stages to ensure compliance with various standards for single class inpatient rooms. To increase the resilience of hospital infrastructure, it is very important to prioritize documentation and dissemination of results, in accordance with the Resilient health infrastructure (RHI) theory developed by Norazam in collaboration with Building Resilient Communities (BRC) MERCY Malaysia. Apart from that, according to the roadmap suggested by BPJS Health, full implementation of KRIS or single class can be achieved in 2025-2026. Preliminary trials of KRIS will take place between 2022-2023, paving the way for the next phase of implementation. In 2025-2026, the allocation of two different categories of inpatient rooms could be an initial investment in prevention efforts, which ultimately leads to a more efficient and productive implementation of KRIS. (DJSN Indonesia. 2021)

Table 2. KRIS BPJS Health Roadmap

2022 – 2023	2024 – 2025	2025 – 2026
KRIS trial and single rates	2024: KRIS with 2 classes in all government hospitals that meet	-2025: Single class KRIS is implemented in

Standard Inpatient Class Policy in Hospital: Opportunities and Challenges (Systematic Literature Review)

2022 – 2023	2024 – 2025	2025 – 2026
	inpatient room standards	government hospitals
Determination of standardization of inpatient rooms	- 2025: At a Private Hospital	- 2026: Single KRIS in all private hospitals
The number of treatment classes is fixed (3 classes)	- Improved service quality	
BPJS provides incentives and disincentives to fulfill treatment room standards		
Determination of hospital value based		

2. Budget and Governance

A budget is an estimate of income and expenses for a certain period of time and is prepared and re-evaluated periodically. (Done N, et al. 2019) According to Padula et al.'s theory, a shortage of personnel will increase costs, while ensuring an adequate amount of hospital supporting infrastructure can reduce costs. In implementing KRIS, the necessary budget preparation includes payment adjustments, tariff adjustments and hospital investment budgets. Payment adjustments based on JKN membership type, as well as policy calculations and payment design. Tariff adjustments are made based on the level and type of hospital as well as the price index in an area. (DJSN Indonesia. 2021) Therefore, the consequences of this tariff adjustment have the opportunity to reduce the potential for fraud due to differences in treatment categories. The preparation of the hospital investment budget includes adjustments to the costs of inpatient classroom infrastructure. These costs include renovation costs for government hospitals and private hospitals. Apart from that, investment costs also include costs for equipment, maintenance furniture and other support.

Priority of patient safety, location of inpatient rooms, access to other supporting service rooms, as well as grouping of inpatient rooms based on sex, age and gender are the main considerations in implementing the KRIS concept according to DJSN. Apart from that, the formulation of the KRIS JKN concept must also consider factors such as the current availability of beds at each level of hospital service, the growth of JKN participants, as well as the definition and criteria of KRIS. (DJSN Indonesia. 2022) It is important to note that this concept is not in line with the Level of Service (LoS) theory proposed by Mowll et al., which focuses on asset management practices for hospital infrastructure, including asset condition, inventory, operation, maintenance, and asset write-off. Therefore, the KRIS DJSN criteria concept functions to standardize inpatient and single class room infrastructure with bed adjustments. The implementation of the KRIS DJSN criteria concept is carried out in stages, where criteria 1-10 become mandatory criteria and criteria 11-12 become mandatory criteria in stages. (Damayanti A. 2022)

Table 3. Standard Inpatient Class Criteria (KRIS)

No	Criteria	Description
1	Building materials should not have high porosity	The components referred to are floors, walls, ceilings, doors and windows. Porosity is very small pores that have the potential to store dust and microorganisms.
2	Air ventilation	The process of supplying outside air (fresh air) into the room or removing stale air from the room.
3	Room lighting	The lighting in question is the use of light that is designed to improve task performance/safety with a standardization of 250 lux and 50 lux for lighting during sleep.
4	Bed equipment	- Minimum of 2 contact boxes and no direct branching/connection without safety - Nurse call which is connected to the nurse
5	Nightstand per bed	Each bed has a cupboard for storing patient belongings which is equipped with a lock
6	Room temperature	Inpatient temperature control must be in the range of 20 C – 26 C (room temperature)
7	Treatment rooms are divided based on JK, Children, Adults, Infectious and non-infectious diseases	The division of treatment rooms is carried out for patient comfort and safety as well as infection prevention and control
8	Room density (Max 4 bed / treatment room, distance between beds min. 1.5m, TT size can be adjusted) Bed ½ crank type according to service needs	- Between the edges of the bed at least 1.5 m is the distance between the edge of the bed to the edge of the next bed. - The maximum number of beds per inpatient room is 4 beds. - Minimum bed size L: 200 cm W: 90 cm H: 50-80 cm. In pediatric inpatient rooms, bed size can be adjusted according to age. - The bed can use 1 or 2 cranks according to hospital service needs and has a safety guard on both sides of bed.
9	Curtains/Partitions between beds	- To maintain patient privacy and patient comfort - When using a curtain divider, the rail is embedded/ attached to the ceiling or hung with the curtain a distance of 30 cm from the floor - Curtains/partitions are brightly colored and easy to clean for infection prevention and control. Routine

Standard Inpatient Class Policy in Hospital: Opportunities and Challenges (Systematic Literature Review)

No	Criteria	Description
		cleaning procedures must be well documented.
10	Inpatient bathroom	Each inpatient room has 1 bathroom with an exit door opening, then there is circulation such as an exhaust fan or window.
11	Bathrooms comply with accessibility standards	- There is a "disable" writing/symbol on the outside - Has sufficient space for wheelchair users - Equipped with a handrail - The floor surface is not slippery and should not cause puddles - It is advisable to have an emergency help button in an easily accessible place
12	Oxygen outlet	Each bed has an oxygen outlet equipped with a flowmeter located on the head panel of the patient's bed (bedhead).

III. RESEARCH METHODS

This research uses the Systematic Literature Review (SLR) method. SLR is a research design where data from the same study and topic is collected, evaluated, integrated, and presented in a structured manner. SLR collects more precise and complete information than traditional literature review (TLR) (Putro & Winarno, 2022).

SLR involves the search, selection, and critical analysis of literature relevant to the topic of standard inpatient class policies in hospitals. The literature search process was carried out through various academic databases, such as PubMed, Scopus, and Google Scholar, Garuda Portal and DOAJ. by using keywords such as "standard inpatient class", "health policy", and "accessibility of health services", "patient satisfaction", "inpatient care", "Indonesian hospitals". As a result of the search, articles will be selected that pass the relevance identification process.

Literature selection criteria include several factors. First, this research must specifically discuss policies regarding inpatient classes in hospitals. Second, the research had to be published within the last decade. Lastly, studies must be accessible in English or Indonesian. Otherwise, certain studies were excluded from consideration. This includes research that is considered irrelevant to the research topic, as well as research that is not available in its entirety.

After the selection process, the selected literature is evaluated in depth to determine the main findings, the methods used to investigate the subject, and the conclusions reached. The results of the analysis are then combined to produce a comprehensive picture of the benefits and weaknesses of implementing standard inpatient class rules in hospitals.

IV. RESULTS AND DISCUSSION

The results of the systematic literature review show that standard inpatient class policies in hospitals have various opportunities and challenges that need to be considered.

From the comparison of existing countries, it can be concluded that social health security administrators determine the existence of standard inpatient classes to standardize the form of inpatient health services for the participants they serve. This standard service is the meeting point between cost effectiveness and fulfillment of health service needs. From the comparison it was also found that in several countries such as Singapore, services above standard, for example private or VIP rooms, can be served at an additional cost. Even in countries like Germany, this service is not directly covered by social health insurance providers so it must be paid for out-of-pocket or with private insurance. From the existing literature, the author did not find details regarding standard inpatient rooms as stated in the KRIS criteria.

For KRIS, one of the main opportunities is increasing the accessibility of health services for underprivileged communities. For example, in a study by the Center for Economic and Health Policy Studies at the University of Indonesia, it was found that this policy had succeeded in increasing the number of poor patients who received inpatient services at hospitals (UI Center for Economic and Health Policy Studies, 2019).

However, the main obstacle in implementing this policy is limited resources, both in terms of medical personnel and physical facilities in hospitals. Data from the Ministry of Health shows that in 2020, only around 60% of hospitals in Indonesia achieved the minimum requirement of having 40% of beds for standard inpatients (Indonesian Ministry of Health, 2020). In addition, the costs of providing standard inpatient services are often not equivalent to the rates set by the government, this results in many hospitals experiencing problems.

Apart from that, this policy also has problems in terms of service quality. A research study conducted by the Faculty of Public Health, University of Indonesia, documented differences in service quality between urban and rural hospitals (UI Faculty of Public Health, 2019). Hospitals in urban areas have more advanced facilities and medical personnel than those in rural areas, so the quality of service is better.

However, this policy also provides various opportunities to improve hospital operational efficiency. For example, several hospitals in Jakarta have succeeded in increasing operational efficiency by implementing an information technology-based management system to optimize the use of beds and medical personnel (DKI Jakarta Health Service, 2021).

Overall, the results of the systematic literature review show that standard hospital inpatient distribution policies have great potential to improve the accessibility and quality of health services, but their implementation requires strong support from the government, hospitals and the community. Therefore, further research is needed to identify the factors that influence the successful implementation of this policy and develop effective strategies to overcome the various challenges that exist.

V. CONCLUSION AND SUGGESTION

Conclusion

- It was found that the standard inpatient class policy in hospitals has great potential to improve the accessibility and quality of health services, but its implementation requires strong support from various parties, including the government, hospitals and the community.
- Several main challenges that need to be overcome include limited resources (infrastructure, equipment, human resources), operational costs, differences in patient financial capabilities and gaps in access and quality of health services.

Suggestion

- Government
The government is expected to increase financial and technical support to hospitals, especially in rural areas.
- Hospital
Hospitals need to make efforts to increase hospital operational efficiency through the implementation of information technology-based management systems.

Acknowledgments

We express our highest gratitude to ARS University for providing full support in turning this scientific research into a valuable publication. Hopefully the results of this research can make a positive contribution to the development of research and scientific progress and be useful for society.

BIBLIOGRAPHY

- Dinas Kesehatan DKI Jakarta. (2021). Laporan Tahunan Dinas Kesehatan DKI Jakarta.
- Fakultas Kesehatan Masyarakat Universitas Indonesia. (2019). Studi Evaluasi Kebijakan Kelas Rawat Inap Standar di Indonesia.
- Kementerian Kesehatan RI. (2020). Data Rumah Sakit di Indonesia.
- Lembaga Penelitian dan Pengabdian kepada Masyarakat Universitas Gadjah Mada. (2020). Evaluasi Kebijakan Kelas Rawat Inap Standar di Rumah Sakit
- Singapore General Hospital (1 April 2024). Type of Wards. <https://www.sgh.com.sg/patient-care/inpatient-day-surgery/type-of-wards-singapore-general-hospital>
- Grand River Hospital Ontario Canada. Room options and billing under OHIP at GRH. <https://www.grhosp.on.ca/care/visitors/billing/room-options>
- CERN Health Insurance Scheme. What's the difference between being hospitalised on a general ward, a semi-private ward and a private ward? <https://chis.cern/whats-difference-between-being-hospitalised-general-ward-semi-private-ward-and-private-ward>
- Esmail N. (2013) Health Care Lessons from Germany. Fraser Institute, p.53.

- Kurniawati G, et al. Kesiapaan Penerapan Pelayanan Kelas Standar Rawat Inap dan Persepsi Pemangku Kepentingan. *Jaminan Kesehatan Nas*, 2021 Jul 17;1(1):33-43
- Nurpeni, et al. Koordinasi Pada Instalasi Pemeliharaan Sarana dan Prasarana Rumah Sakit (IPSPRS) RSUD Arifin Achmad Provinsi Riau. *J Adm Polit dan Sos*. 2021;(3)152-9.
- DJSN Indonesia. Penerapan KRIS dalam JKN. Dewan Jaminan Sosial Nasional. 2021
- Done N, et al. The effects of global budget payments on hospital utilization in rural maryland health Serv Res. 2019 Jun 8;54(3):526-36
- Damayanti A. 2022 Kapan Kelas Standar BPJS Kesehtan Berlaku di Semua RS RI. Jakarta
- DJSN Indonesia. Pemenuhan Prinsip Ekuitas melalui KRIS JKN. Dewan Jaminan Sosial. 2022