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Cost Optimization and Financial Sustainability of Hospitals in the National Health Insurance (JKN) Era: A Case Study on Ureteral Stone Procedures Using an Activity Based Costing (ABC) Approach

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Track Record Article Accepted: Published:	Abstract <i>The National Health Insurance (JKN) system in Indonesia, which utilizes the Indonesia Case Based Groups (INA-CBG) payment scheme, has required hospitals to operate efficiently while maintaining service quality. This study aims to analyze the unit cost of ureteral stone procedures (URS) at severity level 1 (mild category) at Rumah Sakit Islam Sultan Agung Semarang using the Activity Based Costing (ABC) method and compare it with the JKN-INA-CBG tariff. The objective is to identify the funding gap and evaluate its impact on the hospital's financial sustainability. Employing a qualitative descriptive design and a single case study approach, the research collected primary and secondary data to calculate the unit cost, which was then analyzed using the Cost Recovery Rate (CRR). The results show a significant gap between the unit cost calculated with ABC and the JKN-INA-CBG tariff. The JKN-INA-CBG tariff was found to cover the unit cost in cases with a mild severity level, resulting in a surplus. The CRR analysis confirms that a value below 100% in the mild category indicates a financial loss. These findings have important implications for hospital management to optimize costs and negotiate more accountably with BPJS Kesehatan. The originality of this research lies in the specific application of the ABC method to urology procedures and the integration of a comprehensive CRR analysis, providing a unique perspective on financing challenges in the JKN era.</i> Keyword: National Health Insurance (JKN), Activity Based Costing (ABC), Ureterorenoscopy (URS), Unit Cost, Hospital Financial Sustainability
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INTRODUCTION

The development of the National Health Insurance (JKN) system in Indonesia through Presidential Regulation No. 12 of 2013 has brought significant changes to the healthcare financing system. This regulation, implemented by BPJS Kesehatan, shifted the payment model from fee for service to a prospective case-based payment system, namely Indonesian Case Based Groups (INA-CBG) (Kementerian Kesehatan Republik Indonesia, 2013b). This system requires hospitals to manage costs efficiently, as the payments received are in the form of packages and do not depend on the number of services provided. Therefore, quality control and cost control have become two inseparable concepts in modern healthcare services,

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explicitly emphasized in Minister of Health Regulation No. 71 of 2013 (Kementerian Kesehatan Republik Indonesia, 2013a).

Rumah Sakit Islam (RSI) Sultan Agung is a private Class B hospital that has collaborated with BPJS Kesehatan since January 1, 2014. In providing this health insurance, RSI Sultan Agung receives payments based on the INA-CBG tariff established for Class B hospitals and is included in regional two. The hospital has 15 excellent services, with the Urology Center being one of the main focuses. Services at the Urology Center include outpatient and inpatient care. Internal data from 2023 shows a large negative cost difference between the hospital tariff and the INA-CBG tariff for patients undergoing the Ureterorenoscopy (URS) procedure for ureteral stones. The total negative cost difference reached Rp 992,658,000 for 117 patients, indicating a significant funding gap. This gap is consistent with findings from various previous studies, which also found that INA-CBG tariffs do not always cover the hospital's operational costs (unit cost), especially in certain cases, thereby potentially threatening the hospital's financial sustainability (Haqiyah et al., 2025; Kurniawati & Sugeng, 2025; Rahagyan et al., 2024).

In addition, internal data also showed that URS cases at Rumah Sakit Islam Sultan Agung are dominated by patients with severity level 1 (non-complication). Specifically, single URS cases with severity level 1 reached 82.58%. Similar percentages were also found in URS cases combined with other procedures, namely 74.82% for URS + DJ Stent and 81.08% for URS + Lithotripsy. Only the URS + Lithotripsy + DJ Stent cases showed a slightly lower proportion of non-complication cases, at 65%. This data indicates that the majority of URS patients treated at this hospital are non-complication cases that are ideal for standard management. This condition is highly relevant to the research objective, which is to examine the effectiveness of Clinical Pathway (CP) in managing costs. Focusing the research on severity level 1 cases will provide a more accurate picture of the cost gap, as CP is designed to reduce variation in clinical practice for non-complication cases, thus resulting in more homogeneous cost data. Thus, the unit cost analysis using the Activity Based Costing (ABC) method will be more precise, strengthening the findings regarding the financial imbalance between the hospital's operational costs and the INA-CBG tariff.

Therefore, to address this cost challenge, hospitals in Indonesia are beginning to adopt* various management approaches, one of which is the Clinical Pathway (CP) (Pinzon, 2007; Ramayani et al., 2024). CP is a multidisciplinary guide designed to optimize the patient care process, minimize variation in clinical practice, and control costs without compromising

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quality (Fitria et al., 2021; Ramayani et al., 2024; Setyawati et al., 2023; Trimarchi et al., 2021). Furthermore, cost calculation methods are also crucial in determining an accurate unit cost. Several studies have proven that conventional methods often fail to accurately allocate indirect costs (overhead) (Verdika et al., 2022). As an alternative, the Activity Based Costing (ABC) method has emerged as a superior approach because it can allocate costs more accurately and in detail based on cost-driving activities (cost drivers) (Hafni, 2024; Herlina et al., 2023). The effectiveness of the ABC method in determining unit cost has been demonstrated in various cases, such as childbirth, hemodialysis, and inpatient care (Agustin & Dewi, 2023; Firdaus & Ramadhan, 2024; Verdika et al., 2022).

Therefore, this study focuses on calculating the unit cost of urology services, specifically URS at RSI Sultan Agung, using the ABC method. This research aims to analyze the unit cost incurred by the hospital and compare it with the INA-CBG tariff. The study contributes to the existing literature by not only comparing the unit cost with the JKN tariff but also by integrating a comparison with the hospital's internal tariff and evaluating its implications for the Cost Recovery Rate (CRR), thereby providing a comprehensive perspective on the financial sustainability of a private Islamic hospital in the JKN era.

METHODS

This research uses a qualitative descriptive design with a single case study approach at Rumah Sakit Islam Sultan Agung Semarang, aimed at analyzing the unit cost of ureteral stone procedures at severity level 1 (mild category). This research design focuses on the application of the Activity Based Costing (ABC) method, which is considered the most accurate in identifying and allocating costs. The data used is dual: primary data obtained from patient medical records and the Clinical Pathway, and secondary data in the form of financial reports and tariff documents from INA-CBG and the hospital's internal tariff during the period of January – December 2023. After the data was collected, the analysis process began by identifying each activity, gathering direct and indirect costs, and then allocating them using relevant cost drivers to generate the unit cost. This unit cost result then became the basis for a comparative analysis with the INA-CBG tariff and the hospital's internal tariff. This analysis allowed the researcher to identify the funding gap and evaluate its financial impact on the sustainability of the hospital's operations.

RESULTS

The comparison between the hospital tariff, the hospital's unit cost result from the Activity Based Costing (ABC) method, and the INA-CBG tariff shows interesting findings.

Table 1. Comparison of Unit Cost with Hospital Tariffs and INA-CBG's Tariffs

Procedures	INA-CBG's Code	Category	Class I	Class II	Class III
Hospital Tariffs					
URS	N-1-40-I	Mild	12.511.318	11.811.318	11.511.318
URS + Lithotripsy	N-1-40-I	Mild	13.036.318	12.336.318	12.036.318
Hospital Unit Cost Tariffs					
URS	N-1-40-I	Mild	9.322.737	8.622.737	8.322.737
URS + Lithotripsy	N-1-40-I	Mild	9.322.737	8.622.737	8.322.737
INA-CBG's Tariffs					
URS	N-1-40-I	Mild	11.613.700	9.954.600	8.295.500
URS + Lithotripsy	N-1-40-I	Mild	11.613.700	9.954.600	8.295.500

Table 1 shows that the comparison of unit cost calculations using the Activity Based Costing (ABC) method, hospital tariffs, and JKN-INA-CBG's BPJS Kesehatan tariffs for Ureterorenoscopy (URS) procedures, both with and without lithotripsy, at Sultan Agung Islamic Hospital showed a significant cost difference among the three tariff components. This analysis aimed to assess the cost efficiency of the health services provided by the hospital, particularly in the context of its collaboration with BPJS Kesehatan.

Table 2. Difference Between Hospital Tariff and Unit Cost Tariff and INA-CBG Tariff

Procedures	INA-CBG's Code	Category	Class I	Class II	Class III
Difference between Hospital Tariff and Unit Cost					
URS	N-1-40-I	Mild	2.290.963	631.863	-1.027.237
URS + Lithotripsy	N-1-40-I	Mild	2.290.963	631.863	-1.027.237
Difference between Hospital Tariff and INA-CBG Tariff					
URS	N-1-40-I	Mild	-897.618	-2.556.718	-4.215.818
URS + Lithotripsy	N-1-40-I	Mild	-1.422.618	-3.081.718	-4.740.818

As seen in Table 2, the results of the unit cost calculation using the ABC method for the URS procedure at RSI Sultan Agung Semarang show a significant difference compared to

the INA-CBG tariff. The results indicate that the INA-CBG tariff is actually higher than the unit cost calculated with the ABC method. However, there is a negative difference in Class III care for the mild category of Rp 1,027,237 for the URS procedure (with or without lithotripsy). This means that the INA-CBG tariff in this class has not been able to cover the actual service costs. Conversely, in Class I and Class II, the INA-CBG tariff can cover the service costs and even generate a surplus for the hospital, provided the services are delivered efficiently according to the established CP. The larger positive difference in Class I and Class II indicates that the INA-CBG tariff is relatively more sufficient to cover the cost of the procedure compared to Class III.

Furthermore, there is a negative difference between the hospital tariff and the INA-CBG tariff for the URS procedure, both with and without lithotripsy, especially in the mild category for Class III care. For the URS procedure without lithotripsy, the hospital tariff is consistently higher than the INA-CBG tariff across all mild category care classes. The largest difference is found in Class III at Rp 4,215,818, followed by Class II at Rp 2,556,718, and Class I at Rp 897,618. Similarly, the URS procedure with lithotripsy also shows a negative difference between the hospital tariff and the INA-CBG tariff. This difference is recorded in the mild category of Class III at Rp 4,740,818, followed by Class II at Rp 3,081,718, and Class I at Rp 1,422,618. This condition indicates a potential deficit for the hospital if it relies solely on the INA-CBG tariff as the basis for payment.

Table 3. Cost Recovery Rate (CRR) Calculation for URS Patients

Procedures	INA-CBG's Code	Category	Class I	Class II	Class III
CRR1: Hospital Tariff compared to ABC Unit Cost (%)					
URS	N-1-40-I	Mild	134	137	138
URS + Lithotripsy	N-1-40-I	Mild	140	143	145
CRR2: Hospital Tariff compared to ABC Unit Cost (%)					
URS	N-1-40-I	Mild	125	115	100
URS + Lithotripsy	N-1-40-I	Mild	125	115	100
CRR3: Hospital Tariff compared to ABC Unit Cost (%)					
URS	N-1-40-I	Mild	93	84	72
URS + Lithotripsy	N-1-40-I	Mild	89	81	69

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The CRR calculated by comparing the INA-CBG tariff with the ABC unit cost shows that the INA-CBG tariff is able to cover the actual costs in most cases. However, a CRR below 100% in the mild category for all care classes indicates that the INA-CBG tariff is not proportional to the service tariff set by the hospital.

DISCUSSION

The analysis of unit cost in healthcare services is critical to ensuring efficiency and transparency in hospital resource management. In this study, the Activity Based Costing (ABC) method was used to calculate the unit cost of the Ureterorenoscopy (URS) procedure at Rumah Sakit Islam Sultan Agung Semarang during the period of January–December 2023, based on medical records, financial reports, and the Clinical Pathway. The results show a significant gap between the unit cost calculated with this method, the INA-CBG tariff, and the hospital's internal tariff for the URS procedure. This finding reinforces that the INA-CBG tariff does not always cover the hospital's operational costs, especially in certain cases, which potentially threatens the hospital's financial sustainability. This aligns with previous studies that also highlighted that the BPJS Kesehatan tariff does not always reflect the unit cost, particularly for cases with high severity or complications.

This significant nominal difference is not just a number but a reflection of the different pricing philosophies between the hospital and BPJS Kesehatan. Hospitals, especially private ones like RSI Sultan Agung, tend to set tariffs based on the unit cost plus the profit margin needed for investment, service development, equipment replacement, as well as maintaining quality and competitiveness. This approach is consistent with the cost-plus pricing theory, where the selling price (hospital tariff) is calculated by adding a mark-up to the total production cost. On the other hand, the INA-CBG tariff is a government-regulated tariff, determined based on the national average historical cost and considerations for the sustainability of the National Health Insurance (JKN) system. This tariff does not directly account for individual case complexity, the latest technology investment, or the specific operational costs of each hospital..

The findings of this study are consistent with various recent studies in Indonesia that show similar problems. For instance, Alaa ‘Ulil Haqiyah and colleagues, in their research at RS Syarif Hidayatullah in Jakarta, found that the average INA-CBG’s tariff for appendectomy cases was always lower than the hospital’s unit cost, especially for patients with a length of stay of more than five days (Haqiyah et al., 2025). Factors such as disease severity, length of

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stay, and care class are the main causes of this cost difference. This is consistent with the results at RSI Sultan Agung, which show a larger deficit in Class III care.

In addition, a study at RSAL Dr. Mintohardjo by Saripantung on bronchopneumonia cases found that the use of the ABC method resulted in a more detailed and realistic unit cost calculation (Saripantung et al., 2025). Their results showed an average negative difference of 20% of the total service costs. Riyanto, in his research at RSUD Undata on digestive surgery cases, found that the INA-CBG's tariff has not accommodated the costs of clinical complexity and the use of sophisticated technology (Riyanto et al., 2024). Research on the aspect of obstetric services by Hayati et al. on sectio caesarea cases at Bhayangkara Polda DIY Hospital showed that INA-CBG claims are insufficient for major surgical procedures, especially in lower care classes (Hayati et al., 2024). A similar condition is seen in this study, indicating that efforts to provide high-quality services still result in an excessive cost burden for the hospital.

A study by Anni Surayya on primary hypertension cases at RSD K.R.M.T Wongsonegoro found a significant difference between unit cost and the INA-CBG tariff, resulting in a loss (Surayya, 2022). Similarly, a study by Manopo & Susanti explicitly discussed the prediction of hospital bankruptcy due to tariff mismatches (Manopo & Susanti, 2025), while research by Andy Probowo on stroke patients showed a deficit per patient, forcing the hospital to use cross-subsidization (Prabowo, 2025). This finding is also supported by Hadning's research on heart failure patients at Jogja Hospital, where the unit cost was proven to be higher than the INA-CBG tariff and caused losses (Hadning & Kubra, 2025).

By using the ABC method, this study successfully dissected the unit cost of the URS procedure, both with and without lithotripsy, across various care classes. The results show something important: in mild cases, the JKN tariff is capable of generating a surplus. This indicates that the JKN payment system has a varying financial impact depending on the severity level of the case and the care class. This finding provides a strategic basis for hospital management to optimize costs, manage strategy, and negotiate more accountably with BPJS Kesehatan.

This research proves the effectiveness of the ABC method as a superior tool for calculating the unit cost of hospital services due to its ability to allocate costs more accurately and in detail. Unlike conventional methods that are often inaccurate in allocating indirect costs, the ABC method allocates costs based on cost-driving activities, resulting in a more accurate and detailed cost picture. This accuracy provides a strong foundation for hospital management

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to implement cost efficiency and strategic management. The use of the ABC method can also be a more accountable negotiation tool with BPJS Kesehatan because the data generated is more transparent and fact-based.

These findings have important implications for the management of RSI Sultan Agung. With detailed CRR data, the hospital can re-evaluate the feasibility of its internal tariffs and use them as a stronger basis for negotiating with BPJS Kesehatan. This approach is reinforced by the research of Martadinata, Musmini, & Prayudi, which showed that cases with high severity, such as heart failure, tend to result in a CRR deficit, while other cases can generate a surplus (Martadinata et al., 2025). The use of the Activity Based Costing (ABC) method in this study, also used by Verdika, Nurdin, & Kusnadi to analyze the CRR of hemodialysis services, proves the effectiveness of this method in providing a transparent and accountable cost picture (Verdika et al., 2022). Thus, this accurate CRR data becomes a strategic basis for identifying areas that require cost efficiency, in line with the implementation of the Clinical Pathway (CP) to control service costs and increase operational efficiency.

The Cost Recovery Rate (CRR) analysis in this study further clarifies the hospital's financial picture. The CRR, calculated by comparing the INA-CBG tariff with the ABC unit cost, shows that although the JKN tariff can cover actual costs in some cases, a CRR value below 100% in the mild category for all care classes indicates that the tariff received is not comparable to the service tariff set by the hospital, leading to a financial loss. This finding is consistent with other research, such as the study by Kasie, Windiyaningsih, & Supardjo, which showed a significant difference in CRR values based on disease type, severity level, and length of stay, and indicated a financial loss with a CRR value below 100% (Kasie et al., 2023). Furthermore, a study by Hafni, Aji, & Andriani also found significant CRR variations between polyclinics, where a surplus in one service (e.g., respiratory polyclinic) had to be used to cover deficits in other services (cardiology and obstetrics polyclinics) (Hafni et al., 2025). This confirms that the JKN payment system often demands an internal cross-subsidization strategy at the hospital level.

CONCLUSIONS

Based on the analysis conducted, this research concludes that there is a significant gap* between the unit cost of the Ureterorenoscopy (URS) procedure calculated using the Activity Based Costing (ABC) method and the INA-CBG's tariff at Rumah Sakit Islam Sultan Agung. In cases with a mild severity level, the JKN tariff is capable of generating a surplus. The Cost

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Recovery Rate (CRR) analysis reinforces this finding, showing that a CRR value below 100% in some case categories indicates a financial loss.

This research also proves that the ABC method is a superior tool for calculating the unit cost of hospital services due to its ability to allocate costs more accurately and in detail. These findings provide a strategic basis for the management of RSI Sultan Agung to evaluate the feasibility of internal tariffs, optimize efficiency through the implementation of the Clinical Pathway, and negotiate more accountably with BPJS Kesehatan. For BPJS Kesehatan, the results of this study can be valuable input for reviewing the JKN tariffs to be more proportional to the variation in unit cost in the field, thereby supporting the sustainability of healthcare services in partner hospitals.

REFERENCE

- Agustin, G. K. W., & Dewi, P. E. D. M. (2023). Analisis Penerapan Metode Activity Based Costing dalam Menentukan Tarif Jasa Rawat inap pada Rumah Sakit Umum Daerah Kabupaten Buleleng. *Jurnal Ilmiah Akuntansi Dan Humanika*, 13(1), 23–32. <https://doi.org/10.23887/jiah.v13i1.45301>
- Firdaus, Y., & Ramadhan, Y. (2024). Analisis Perbandingan Tarif Rumah Sakit, Tarif INA-CBGs dan Unit Cost Berbasis Clinical Pathway dengan Menggunakan Metode Activity Based Costing pada Tindakan Persalinan Normal dan Kuretase di Rumah Sakit Ibu dan Anak “X” di Kota Tangerang. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (MEA)*, 8(3), 55–73. <https://doi.org/10.31955/mea.v8i3.4398>
- Fitria, A., Armani, A. S., Rochmah, T. N., Purwaka, B. T., & Pudjirahardjo, W. J. (2021). Penerapan Clinical Pathways sebagai Instrumen Pengendalian Biaya Pelayanan di Dr. Soetomo: Studi Penelitian Tindakan Penderita BPJS yang Menjalani Operasi Caesar dengan Sistem Pembayaran INA-CBG. *Jurnal Keperawatan Silampari*, 4(2), 593–599. <https://doi.org/10.56799/ekoma.v3i2.2872>
- Hadning, I., & Kubra, A. (2025). Cost Analysis of Inpatient Heart Failure Treatment in Jogja Hospital Based On INA-CBG's Tariffs In 2023. *JPSCR: Journal of Pharmaceutical Science and Clinical Research*, 10(1), 387–396. <https://doi.org/10.20961/jpscr.v10i1.87321>
- Hafni, D. A. (2024). The Determination of Inpatient Room Unit Cost Using ABC Method at PKU Muhammadiyah Nanggulan Hospital-Yogyakarta. *EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi*, 3(2), 696–704.

Author names dkk / Scientific Periodical of Public Health and Coastal 4(2),2022 , halaman 87-99 (10pt, all caps, Cambria, Normal)

- Hafni, D. A., Aji, S. S. B., & Andriani, M. (2025). Analysis of The Cost Recovery Rate for Inpatient Services Under The National Health Insurance Scheme at Hospital X in Yogyakarta. *Journal of Accounting and Investment*, 26(1), 71–86. <https://doi.org/10.18196/jai.v26i1.23520>
- Haqiyah, A. 'Ulil, Rosidawati, I., & Andikarya, R. O. (2025). Analisis Perbedaan Biaya Riil dengan Tarif INA-CBG's dan Faktor yang Mempengaruhinya pada Pasien Appendectomy Peserta BPJS Kesehatan pada RS Syarif Hidayatullah Jakarta. *Al-Kharaj: Jurnal Ekonomi, Keuangan & Bisnis Syariah*, 7(7), 2667–2673. <https://doi.org/10.47467/alkharaj.v7i7.8857>
- Hayati, A., Budi, S. C., & Dani, I. A. (2024). Analysis of Differences Between Hospital Rates and INA-CBG's Claim of Sectio Caesarea. *Procedia of Engineering and Life Science*, 6, 18–23. <https://doi.org/10.21070/pels.v6i1.1924>
- Herlina, N., Purwadhi, & Widjaja, Y. R. (2023). Activity Based Costing Method in Determining Tariffs at Waikabubak Regional Hospital, West Sumba-NTT. *Jurnal MARSI*, 7(1), 30–38. <https://doi.org/10.52643/marsi.v8i4.4494>
- Kasie, J. N., Widiyaningsih, C., & Suparjo, S. (2023). Analisis Biaya Pemulihan Rumah Sakit Pada Pasien Rawat Inap Penyakit Dalam Yang Menggunakan Jaminan Kesehatan Nasional Di Rumah Sakit Firdaus Jakarta Utara. *Jurnal Manajemen Dan Administrasi Rumah Sakit Indonesia (MARSI)*, 7(3), 236–247. <https://doi.org/10.52643/marsi.v7i3.3385>
- Kementerian Kesehatan Republik Indonesia. (2013a). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 71 Tahun 2013 Tentang Pelayanan Kesehatan Pada Jaminan Kesehatan Nasional*. Kementerian Kesehatan Republik Indonesia.
- Kementerian Kesehatan Republik Indonesia. (2013b). *Peraturan Presiden Nomor 12 Tahun 2013 tentang Jaminan Kesehatan*. Kementerian Kesehatan Republik Indonesia.
- Kurniawati, I. D., & Sugeng, S. (2025). Hospital Cost Containment Efforts on the Differences between Hospital Real Rates and INA CBG's Rates for Inpatients with Pneumonia Complications at Dr. Sardjito Hospital. *Procedia of Engineering and Life Science*, 7, 23–28. <https://doi.org/10.21070/pels.v7i0.2094>
- Manopo, W. L. M., & Susanti, N. (2025). Prediksi Kebangkrutan Rumah Sakit Akibat Ketidakesuaian Sistem Tarif INA-CBGS. *Journal of Accounting and Finance Management*, 6(2), 724–731. <https://doi.org/10.38035/jafm.v6i2.1938>
- Martadinata, I. P. H., Musmini, L. S., & Prayudi, M. A. (2025). Cost-to-Revenue Dynamics of

Author names dkk / Scientific Periodical of Public Health and Coastal 4(2),2022 , halaman 87-99 (10pt, all caps, Cambria, Normal)

- Indonesia's National Health-Insurance (BPJS Kesehatan) Services: Evidence from a Government Hospital Case Study. *E-Jurnal Akuntansi*, 35(5), 1558–1598. <https://doi.org/10.24843/EJA.2024.v35.i05.p08>
- Pinzon, R. (2007). *Clinical Pathway: Sebuah Panduan Praktis*. Pustaka Pelajar.
- Prabowo, A. (2025). *Analisis Tarif INA-CBG's dan Dampaknya terhadap Rumah Sakit*. Universitas Indonesia.
- Rahagyan, D. D., Widjaja, L., Fannya, P., & Yulia, N. (2024). Perbandingan Tarif Rumah Sakit dan INA-CBG pada Pasien Diabetes Mellitus Tipe II Rawat Jalan di RSIJ Sukapura. *Jurnal Kesehatan Medika Udayana*, 10(02), 172–182. <https://doi.org/10.47859/jmu.v10i02.491>
- Ramayani, N., Rosyidah, R., & Hidayat, M. S. (2024). Implementasi Clinical Pathway terhadap Mutu, Biaya dan Varians Pelayanan: Suatu Studi Literatur. *Jurnal Formil (Forum Ilmiah) Kesmas Respati*, 9(1), 32–40. <https://doi.org/10.35842/formil.v9i1.533>
- Riyanto, R. D. S., Endarti, D., & Nugroho, A. E. (2024). Analisis Kesesuaian Biaya Medis Langsung Terhadap Tarif INA-CBGs Pada Pengobatan Pasien Bedah Digestif Di Rawat Inap RSUD Undata. *Generics: Journal of Research in Pharmacy*, 4(1), 47–56. <https://doi.org/10.14710/genres.v4i1.22497>
- Saripantung, J. S., Kusumapradja, R., & Silviana, I. (2025). Analysis of the Differences in Unit Costs for Bronchopneumonia Services Based on Clinical Pathway with INA-CBGs Rates and Hospital Rates at Dr. RSAL. Mintohardjo. *Jurnal Riset Ilmu Kesehatan Umum Dan Farmasi (JRIKUF)*, 3(1), 175–192. <https://doi.org/10.57213/jrikuf.v3i1.552>
- Setyawati, H. N., Prasetyawati, Y., Md, A., Wulandari, A., & Kep, A. M. (2023). Penerapan Clinical Pathway Meningkatkan Efisiensi Biaya Perawatan Pasien BPH di RSUD Rizki Amalia Medika Tahun 2022. In *PERSI Awards 2023*.
- Surayya, A. (2022). *Analisis Perbedaan Tarif Riil dengan Tarif INA-CBG's pada Kasus Hipertensi Primer Pasien JKN di RSD K.R.M.T Wongsonegoro Kota Semarang*. Sekolah Tinggi Kesehatan Mitra Husada Karanganyar.
- Trimarchi, L., Caruso, R., Magon, G., Odone, A., & Arrigoni, C. (2021). Clinical Pathways and Patient-Related Outcomes in Hospital-based Settings: S Systematic Review and Meta-Analysis of Randomized Controlled Trials. *Acta Bio Medica: Atenei Parmensis*, 92(1), e2021093. <https://doi.org/10.23750/abm.v92i1.10639>
- Verdika, R., Nurdin, N., & Kusnadi, D. (2022). Analisis Perbandingan Biaya Satuan Pelayanan

Author names dkk / Scientific Periodical of Public Health and Coastal 4(2),2022 , halaman 87-99 (10pt, all caps, Cambria, Normal)

Hemodialisa Dengan Metode Activity Based Costing (ABC) Terhadap Tarif Rumah
Sakit Dan Tarif Ina-Cbgs Serta Cost Recovery Rate (CRR). *Humantech: Jurnal
Ilmiah Multidisiplin Indonesia*, 1(12), 1907–1922.
<https://doi.org/10.32670/ht.v1i12.2521>

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