JHPM Journal of Health Policy and Management (2025), 10(03): 297-309
Masters Program in Public Health, Universitas Sebelas Maret

Research
Open Access

Evaluation of Anesthesia Management Care in the Central Surgical Installation

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Received: July 4, 2025; Accepted: August 12, 2025; Available online: September 16, 2025

ABSTRACT

Background: Effective anesthesia management is essential to ensure patient safety, minimize perioperative complications, and promote optimal recovery. Comprehensive planning across the pre-, intra-, and postoperative phases allows anesthesiologists to deliver systematic and high-quality care. Evaluating each component of anesthesia services context, input, process, product, and outcome is crucial for maintaining professional standards and improving patient satisfaction. Therefore, this study aimed to evaluate anesthesia care arrangements (pre-, intra-, and postoperative) at the Central Surgical Installation of dr. Soepraoen Kesdam V/Brawijaya Malang Hospital using the CIPP evaluation model.
Subjects and Method: This qualitative evaluative study was conducted from June 1 to July 1, 2024, employing the Context, Input, Process, and Product (CIPP) framework. Five anesthesiologists were selected through probability sampling. Data were collected through in-depth interviews, direct observations, document reviews, and Focus Group Discussions, and analyzed through data reduction, classification, and interpretation.
Results: Evaluation of the context and input components showed that anesthesia services complied with professional standards and ASKAN guidelines, supported by adequate human resources, infrastructure, and standard operating procedures. The process component including assessment, diagnosis, intervention, implementation, evaluation, and documentation was implemented adequately but not fully aligned with the ASKAN guidelines. Product evaluation indicated satisfactory documentation quality with partial conformity to the 2023 ASKAN edition. The outcome showed stable patient hemodynamics and high satisfaction levels.
Conclusion: Context and input components were well-implemented, while process and product evaluations were adequate but require improved documentation to align with the latest ASKAN standards.

Keywords: anesthesia care, patient safety, perioperative management

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Cite this as:
Permana AR, Demartoto A, Murti B (2025). Evaluation of Anesthesia Management Care in the Central Surgical Installation. Health Policy Manage, 10(03): 297-309. https://doi.org/10.26911/thejhpm.2025.10.03.03.a.

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BACKGROUND

An anesthesiologist is any person who has graduated from education in the field of nursing anesthesiology who is given full duties, responsibilities, authority, and rights by authorized officials to carry out anesthesia arrangement care service activities in accordance with the authority and laws and regulations contained in the Regulation of the Minister of Health of the Republic of Indonesia No.18 of 2016 concerning Permits and Implementation of Anesthesia Arrangement

Practices (Kemencase, 2016). In accordance with the Decree of the Minister of Health of the Republic of Indonesia Number HK.01.-07/Menkes/722/2020 concerning Professional Standards for Anesthesiologists, it is also stated that anesthesia care is a series of comprehensive care activities for patients who are unable to help themselves in service actions before, during, and after anesthesia or other situations that interfere with health (Ministry of Health, 2020). The approach to the anesthesia management care method includes assessment, determination of anesthesia health problems, action plans or interventions, implementation, evaluation, and documentation (Wahyudi et al., 2023).

Anesthesiologists have performed anesthesia services in 107 countries and in 70%-80% of all anesthesia cases in the world (Meeusen et al., 2016). The number of anesthesiologists in Indonesia in 2020 was recorded at 546 anesthesiologists registering new and re-registering, so it is estimated that the total number of registered anesthesiologists in Indonesia is 2,730 people (Ministry of Health, 2020). On the distribution map, the members of the Association of Anesthesiologists (IPAI) of East Java Province itself have 696 members of anesthesiologists, 5 members registered in the city of Malang, and 13 members in Malang district. However, their education, roles and responsibilities are very different. Generally, the anesthesiologist continues to be present during the anesthesia, quickly assessing the patient's condition. Together with other healthcare workers, they are involved in all three phases of perioperative anesthesia care (pre, intra, and postoperative), facilitating surgery, trauma care, follow-up life support and other emergency cases with the aim of achieving the best outcomes and preventing complications (Steward et al., 2021).

In its application, anesthesiologists are required to collaborate with anesthesiologists. An anesthesiologist after completing anesthesia/anesthesia on the patient to be operated on, the next important task and responsibility is to supervise, maintain, and maintain the physiological function of the patient's vital organs so that they remain within normal limits (Progmet et al., 2016). In order for the physiological function of the patient's vital organs to be maintained within normal limits, anesthesiologists and anesthesiologists must be on standby to monitor the patient's hemodynamics continuously so that any event that arises that is detrimental to the patient's safety can be quickly detected and immediately overcome (Cherpanath et al., 2014).

Hemodynamics is the flow of blood in a vascular system with one driving pump, the heart. Hemodynamics functions to flow clean blood that contains a lot of oxygen and nutrients to produce the energy needed by the body's vital and non-vital organs and to transport metabolic residues to the venous vascular system. The hemodynamics of patients undergoing surgery under anesthesia are said to be within normal limits when all vital organs are functioning properly, for example: blood pressure within normal limits, pulse not tachycardia or bradycardia, good oxygen saturation, skin color not cyanosis, electrocardiogram picture within normal limits, and normal urine production (Sirait, 2016). If hemodynamic instability occurs, the patient will require intensive care (Huygh, 2016).

The implementation of care is very important because it helps ensure patients receive appropriate medical care. Through an appropriate structuring approach (pre, intra, and post-anesthesia), the anesthesiologist is able to plan effective care and good care implementation. This will reduce the risk of complications in anesthesia and increase patient recovery after anesthesia and surgery.

SUBJECTS AND METHOD

1. Study Design

This study is a qualitative research using the CIPP (Context, Input, Process, and Product) evaluation model with Outcome as a result of the evaluation. The implementation of the research was conducted from June 1 to July 1, 2024 at the Central Surgical Installation (IBS) of Tk.II Hospital dr. Soepraoen Kesdam V/Brawijaya Malang.

2. Population and Sample

The population of the informants in question is all anesthesiologists at the Central Surgical Installation of Level II Hospital dr. Soepraoen Kesdam V/Brawijaya Malang with a sample of 5 informants. The technique used is probability sampling.

3. Operational Definition

Context evaluation aims to provide a logical basis for setting program implementation goals. The context of this research is anesthesia arrangement care services in accordance with the professional standards of anesthesiologists and in accordance with the guidelines of the ASKAN book Edition I: October, 2023.

Evaluation of inputs to facilitate the implementation of programs designed in the context stage including the 5M (Man, Money, Methods, Machine, and Material).

Process evaluation refers to the way the program is implemented as well as the interaction between personnel. The components of the anesthesia care service process include assessment, determination of anesthesia health problems, intervention, implementation, evaluation, and documentation.

Product evaluation describes products resulting from anesthesia care services in the form of ASKAN documentation.

Outcome refers to measurable and observable changes as a consequence of anaesthesia management care services including patient hemodynamics.

4. Study Instrument

The forms of instruments in this study are interviews, direct observations, and review documents. Non-human instruments (such as interview guidelines, observation guidelines and standard operating procedures) can be used as support for the studyer's task as key instruments.

5. Research Ethics

Study ethics issues including informed consent, anonymity, and confidentiality, are handled with care during the study process. The approval letter for the study ethics permit was obtained from the ITSK Study Ethics Committee of dr. Soepraoen Hospital, No. KEPK-EC/114/VII/2024 on July 24, 2024.

RESULTS

1. Sample Characteristics

Table 1 shows that all informants are anesthesiologists with the same educational background, namely applied nursing anesthesiology bachelors. The age of the informants ranges from 29 to 58 years old with the status of State Civil Apparatus (ASN Ministry of Defense and TNI-AD) and Regional Unit Service Agency (BLUD).

Table 1. Characteristics of Informants

Informant	Age	Education	Profession	ASN/BLUD
PA 1	58 years	Applied Bachelor of Nursing Anesthesiology	Anesthesiologist	BLUD 31 years old
PA 2	55 years	Applied Bachelor of Nursing Anesthesiology	Anesthesiologist	ASN 25 years old
PA 3	31 years	Applied Bachelor of Nursing Anesthesiology	Anesthesiologist	BLUD 9 years

Informant	Age	Education	Profession	ASN/BLUD
PA 4	30 years	Applied Bachelor of Nursing Anesthesiology	Anesthesiologist	BLUD 8 years
PA 5	29 years	Applied Bachelor of Nursing Anesthesiology	Anesthesiologist	BLUD 8 years

2. Data Presentation

a. Context Evaluation

The results of the context evaluation analysis showed that from 2 aspects revealed regarding the regulation of anesthesia managers and anesthesia care services (pre, intra, and post) in the Good criteria. All informants understand and know the professional standards of anesthesiologists and implement anesthesia care services (pre, intra, and post) in accordance with applicable regulations.

Table 2. Results of Context Evaluation

Aspects / Sub Aspects	Criterion			Information
	B	C	K	
KMK RI No. HK.01.07/MENKES/722/2020 About the Anesthesiologist Professional Standards	√			Anesthesiologists understand and know the standards of the anesthesia profession in anesthesia services (pre, intra post).
Anesthesia Structuring Care according to the latest ASKAN book	√			The anesthesiologist performs anesthesia services (pre, intra, and post) well.

Description: B: Good C: Quite K: Less

The anesthesiologist at Tk. II hospital, dr. Soepraoen, knows and understands the regulations well. The practice of anesthesiologists is carried out without separating from the competence of anesthesiologists in accordance with the Decree of the Minister of Health of the Republic of Indonesia No.HK.-01.07/MENKES/722/2020 concerning professional standards for anesthesiologists.

> *"We as anesthesiologists understand very well the regulations of anesthesiologists to date. We adhere to the applicable professional standards and according to the instructions of the anesthesiologist" – Informant PA 4.*

In addition to the anesthesiologist performing his duties of monitoring anesthesia on patients in the operating room, the anesthesiologist is also able to perform pre-anesthesia services such as handover, patient preparation, and preparation of anesthesia tools or machines. In the post-anesthesia session, they must also be able to observe the general condition, *score* the patient after anesthesia, and handover the patient to the next room (HCU, ICU, ICCU, or Inpatient). Informant 4 also stated,

> *"The anesthesia arrangement care service is carried out by the anesthesiologist himself. But due to the limited amount of energy, the anesthesiologist is assisted by a nurse in the pre-anesthesia and post-anesthesia processes. For intra-anesthesia services, only an anesthesiologist is carried out accompanied by an anesthesiologist. But it is possible that we can do competencies in pre-anesthesia and post-anesthesia".*

b. Input Evaluation

The results of the input evaluation analysis showed from 5 aspects and each sub-aspect was revealed in the Good criterion. Aspects in the input evaluation consist of 5M (Man, Money, Methods, Machine, and Material).

Man with sub-aspects regarding Human Resources, money with budget sub-aspects, methods with sub-aspects of the use of SOPs (Standard Operational Procedures), machines with sub-aspects of main and supporting machines, and materials with sub-aspects of infrastructure facilities in anesthesia care services (pre, intra, and post).

Table 3. Results of Input Evaluation

No.	Aspects / Sub Aspects	Criterion			Information
		B	C	K	
1.	Man (HR)				
	Anesthesia Arrangement Care Provider Profession	√			Human Resources is good because anesthesia services are carried out by the anesthesiologist profession.
	The last education of the profession that conducts Anesthesia Arrangement Care	√			Human Resources is good because the anesthesiologist has a background in Applied Nursing Anesthesiology.
	Professional organizations that carry out Anesthesia Structuring Care	√			Human Resources is good because the professional organization of anesthesiologists is IPAI.
2.	Money (Budget)				
	The amount of budget needs if there is a change in the arrangement of anesthesia care	√			It is said that it is good if there is a change in the arrangement of care, anesthesia does not require an estimate.
3.	Method (SOP)				
	SOP (Standard Operational Procedure) Structuring Care Services (Pre, Intra, and Post) Anesthesia	√			The SOP for Anesthesia Arrangement Care Services is good because there is an SOP that has been passed by the leadership in every action.
4.	Machine				
	Comparison of anesthesia machines (main and support) with the number of patients per day	√			The comparison of machines used for anesthesia services is according to the number of patients, namely 1 machine for 1 patient.
	Availability of machines used in anesthesia care services	√			The machines used are good because they are equipped with modern facilities and adapt technology
5.	Materials (Infrastructure)				
	Comparison of operating rooms with the number of patients per day	√			The comparison of operating rooms is good because there are 8 operating rooms with an average operation of -/+ 30 patients per day.
	The process of improving infrastructure facilities regarding anesthesia arrangement care services	√			The process of improving infrastructure facilities is good because it has a program that is in accordance with the goals to be achieved.

Description: B : Good C: Enough K: Less

1) Man

All informants in this study work as anesthesiologists with the professional organization IPAI (Indonesian Association of Anesthesiologists) with a background in Applied Nursing Anesthesiology.

"The provision of anesthesia arrangement care services is carried out

by anesthesiologists. His D-III educational background is a nurse with anesthesia training. But currently, she has taken the RPL class and has passed D-IV Nursing Anesthesiology. So that the professional organization is IPAI"- Statement of the PA Informant 3.

2) Money

The medical record form at Tk.II Soepraoen Kesdam V/Brawijaya Malang hospital is available in *paperless* form, including at the Central Surgical Installation (IBS). So that there are no documents or papers recorded using pens by medical personnel or health workers. PA1 informant said,

"Medical records in the hospital are in paperless form, so that input and reporting of patients' health status are carried out using a computer. Only some documents such as informed consent (consent letter for patient action) require the patient or the patient's family to read and sign the procedure that we will perform."

This is supported by the statement of the PA 2 informant,

"The process of changing the care of the arrangement of anesthesia goes through a long process. The anesthesiologist only proposed to the head of the Central Surgical Installation then through some consideration so that it was only raised to the head of the medical records unit. The head of the medical record unit will assign the IT team to change the redaction contained in the current medical record".

3) Methods

The method of care for the arrangement of anesthesia used in accordance with the SOP (Standard Operating Procedure) of medical procedures in perioperative and perianesthesia services has been approved by the head of the Central Surgical Installation. PA2 informant explained,

"There is an SOP for every anesthesia arrangement care service, both pre, intra, and post. In fact, not only the three, we have SOPs for every action. For example, the flow of sign in, time out, sign out, SOP for intubation action, sub arachnoid block, epidural anesthesia and so on".

4) Machine

Modern anesthesia machines are equipped with ventilator supports, suction units, and patient monitoring equipment. The anesthesia machine at the Central Surgical Installation is available 1 unit in each operating room. The anesthesia machine is equipped with advanced features and is routinely maintained and calibrated every 6 months. This was stated by the PA 1 informant,

"The anesthesia machine here has been updated and can definitely be used because it is always maintained by electromedical personnel and calibrated every 6 months by the appointed institution".

5) Material

Achieving maximum utilization of operating rooms is the expectation of a hospital in providing optimal services. The infrastructure at the Central Surgical Installation (IBS) of Tk.II Soepraoen Hospital is equipped with a handover/preremediation room, 8 operating rooms, a recovery room, a changing room for doctors and nurses, a CSSD room, a pharmacy depot, a nurse and doctor room, and a pantry. The operating room consists of 8 rooms with 2 operating rooms for infectious diseases and 6 rooms each with surgical specificity. Infrastructure facilities that support anesthesia care services can be carried out in 3 parts of the room, namely preremediation, operating room, and conscious recovery room.

"The average number of patients every day is approximately 30 patients and is divided into 6 operating rooms, because 2 are for infectious diseases such

as Covid/HIV. So that one operating room is effectively used for up to 5 patients in one day. Ideally, 1 operating room also has 1 anesthesiologist who performs anesthesia arrangement care services"- Informant PA 3.

c. Process Evaluation

The results of the process evaluation analysis show that the aspect of the anesthesia arrangement care approach in the criteria is quite good because the anesthesiologist has applied the anesthesia arrangement care approach in the anesthesia arrangement care service, but the documentation is still not in accordance with the latest ASKAN book edition I: October, 2023.

Table 4. Proccess Evaluation Results

Aspects / Sub Aspects	Criterion			Information
	B	C	K	
The appropriate approach applied to anesthesia management care services includes: assessment, determination of MKA (Anesthesia Health Problems), Intervention, Implementation, Evaluation, and Documentation		√		The approach is quite good because the anesthesiologist has applied to anesthesia services (pre, intra, and post) to patients but is still not 100% in accordance with the ASKAN book.

Note: B: Good; C: moderate; K: poor

In the anesthesia arrangement care service, the anesthesiologist at Tk.II Soepraoen Hospital has applied the 6 items above both in pre, intra, and post-anesthesia to each patient. To do this, an anesthesiologist must have the right and accurate knowledge, attitude, and skills to conduct assessments, determination of MKA, intervention, implementation until the patient is evaluated.

"The process of reviewing, determining MKA, intervention, implementation, and evaluation has become our daily food. The assessment can be studied directly on the patient, the determination of the MKA can also be immediately drawn to the problem, the intervention is already out of the head, the implementation can be done independently or in collaboration with doctors or nurses, and the evaluation varies from 3 minutes, 5 minutes, 15 minutes, 30 minutes, or 1 hour every time the implementation is completed" Informant PA 5.

d. Product Evaluation

The results of the analysis of the 2-aspect product evaluation show 1 aspect of Good and 1 aspect of Good. The aspect of the Askan approach requires special attention because it includes the study, determination of MKA, Intervention, Implementation, and Evaluation. Meanwhile, the documentation is still not in accordance with the latest ASKAN book edition I: October, 2023. Filling in the anesthesia arrangement is only filled by the anesthesia arrangement care provider, namely the anesthesiologist.

Table 5. Product Evaluation Results

Aspects / Sub Aspects	Criterion			Information
	B	C	K	
US Documentation		√		Documentation is still not 100% in accordance with the ASKAN book.
The basic approach is carried out in collaboration with other health professions	√			The good approach is done by the anesthesiologist.

Description: B : Good C: Enough K: Less

Documentation has not fully adapted the latest US books. But the content in the ASKAN book has been applied to patients, only the redaction or the use of sentences is different, for example in anesthesia health problems (MKA) is not in accordance with the medical record. Informant PA 4 said, *"We have only studied ASKAN books since the end of last year, around November. So it needs to be reviewed if you want to change your previous medical records."* Informant PA 5 added,

> *"Indeed, the writing is not the same as that in the ASKAN book. But for systematics starting from the assessment, determination of MKA, intervention, implementation, evaluation, and documentation we have applied to patients for a long time. It is only possible through actions to patients, for the documentation is almost similar, such as the assessment becomes a pre-operative assessment. For MKA, it is also still adjusting to the medical diagnosis from the anesthesiologist and the operator concerned."*

e. Outcome

The results of the outcome evaluation analysis showed from 2 aspects revealed in the Good criteria. The hemodynamic aspect of patients in anesthesia care services (pre, intra, and post) is within normal limits. If there are patients who have comorbidities and complications after anesthesia services, they are immediately treated and further observed in HCU, ICU, or inpatient. Patient satisfaction in anesthesia care services can be accessed through the website of Tk. II Hospital dr. Soepraoen every quarter.

Table 6. Outcome Results

Aspects / Sub Aspects	Criterion			Information
	B	C	K	
Patient hemodynamics towards anesthesia arrangement care services (pre, intra, and post) anesthesia.	√			The patient's hemodynamics after anesthesia service were well within normal limits.
Patients are satisfied with anesthesia arrangement care services (pre, intra, and post).	√			Patient satisfaction with anesthesia care services is good because there is no criticism on patient satisfaction in the last second quarter

Description: B : Good C: Enough K: Less

The anesthesiologist provides the best service for the patient's hemodynamics to remain stable within normal limits. Patients with comorbidities and complications as much as possible are fully monitored. If the patient is monitored further, the patient will

be transferred to the intensive room. If the patient does not have complications then it can be transferred to the inpatient room. Informant PA 1 stated,

> *"The patient's hemodynamics are mainly monitored during anesthesia care services. Every time surgery is performed, the patient is first assessed by a doctor, nurse, or anesthesiologist whether it is feasible to have surgery or not. So that the patient who will undergo surgery has gone through several considerations. Patients in poor modalities, surgery will be postponed if possible. If it is still done, all medical and health personnel in the room must be prepared for complications that occur. If it happens, the patient will be transferred to intensive rooms such as HCU and ICU."*

DISCUSSION

Context, Input, Process and Product Evaluation (CIPP model) is used to measure the difficulty level of the program and provide formative evaluation data to stakeholders with the aim of improvement (Gandomkar et al., 2015). The first component, context evaluation, is useful when the established program is undergoing changes that are planned to adjust to changing conditions. The second part, input, helps build the right program model to ensure the needs are identified. Process evaluation provides formative data to guide revisions as the program is running. The last component, product evaluation produces valuable information to assess program results (Mirzazadeh et al., 2016).

1. Context Evaluation

This evaluation includes planning, program requirements, and program objectives to assess problems, needs, resources, and opportunities related to conditions on the ground (Lagantondo et al., 2023). So as to describe the care services of anesthesia arrangement in accordance with the regulations of anesthesia managers from the two aspects described as follows:

Professional Standards for Anesthesiologists

The professional standards of anesthesiologists are intended as guidelines for Anesthesiologists in providing measurable, standardized, and quality Anesthesia Arrangement Care services in Health Service Facilities. It aims to serve as a guideline for Anesthesiologists in providing measurable, standardized, and quality Anesthesia Arrangement Care services at Health Service Facilities (Ministry of Health, 2020).

Anesthesiologist at Tk. II hospital dr. Soepraoen knows and understands the regulations well in accordance with the professional standards of anesthesiologists and ASKAN books.

Anesthesia Arrangement Care Services (Pre, Intra, and Post)

Anesthesiologists have the main duties in Anesthesia Arrangement Care Services which include pre-anesthesia, intra-anesthesia, and post-anesthesia. Anesthesiologists in carrying out Anesthesia Arrangement Care services have the ability to include pre-anesthesia, intraanesthesia, and post-anesthesia in accordance with laws and regulations (Ministry of Health, 2020).

2. Input Evaluation

To supervise, collect data and produce reports on the implementation of program planning, process evaluation is carried out. Stakeholders can use this feedback or evaluation input to assess how well the program is performing. The information from this evaluation can be used by stakeholders to determine whether the implementation of the program, strategy, and program success have shortcomings (Hubberman, 2014). The main areas of concern for the input evaluation study are: (1) human resources; (2) supporting facilities and equipment; (3) funds/budget; and (4) various procedures and rules that must be followed

(Lestari et al, 2019). The evaluation of the inputs that will be used in this study consists of man, methode, material, machine, and money (Aprilia et al., 2020) as follows:

Man: Man is a 5M model that is referred to in humans as a workforce. All informants in this study work as anesthesiologists with IPAI professional organizations with an educational background in Applied Nursing Anesthesiology.

Money: Money is the main source of funds used as capital in carrying out a policy. The implementation of the anesthesia arrangement evaluation does not require a fee for changes in the care format. Because the medical record form at Tk.II Soepraoen Kesdam V/Brawijaya Malang hospital is available in paperless form.

Methods: Methods or procedures that refer to methods as an approach to service activities**. The method of care for the arrangement** of anesthesia used in accordance with the SOP (Standard Operational Procedure) for medical procedures in perioperative and perianesthesia services has been approved by the head of the Central Surgical Installation.

Machine: A machine is a facility or tool that supports the company's activities, both operational and non-operational. The anesthesia machine at the Central Surgical Installation is available 1 unit in each operating room. The anesthesia machine is equipped with advanced features and is routinely maintained and calibrated every 6 months.

Material: Material or can be called raw materials or infrastructure as the main element that is used as the main material. Infrastructure facilities that support anesthesia care services can be carried out in 3 parts of the room, namely preremediation, operating room, and conscious recovery room.

3. Process Evaluation

The evaluation process aims to evaluate the extent to which the program or activity has been implemented, what obstacles are faced during its implementation, and which aspects must be improved and improved. Process evaluation focuses on the implementation of activities, not just on the end result. The evaluation of the process emphasizes the extent to which the implementation of a program or activity has been implemented, what obstacles are faced, and what aspects must be improved and improved (Theodos & Firschein, 2015). Anesthesia nursing services in pre, intra, and post-anesthesia with an approach to anesthesia structuring methods include assessment, analysis and determination of problems, intervention plans, implementation and evaluation of the following (Setiabudi et al., 2023).

Assessment: The anesthesiologist collects all accurate, relevant, and complete information from all sources related to the patient's condition. The assessment includes the collection of subjective and objective patient data and data analysis.

Determination of MKA (Anesthesia Health Issues): The anesthesiologist analyzes the data obtained at the review, interpreting accurately and logically to determine the patient's right concerns. The determination of the MKA can be obtained through the stages of data classification, data interpretation, validation, and formulation of the MKA.

Intervention: The anesthesiologist plans the care of the anesthesia arrangement based on the established problem. Interventions are carried out based on patient-focused AKAN objectives, clear, concise, measurable over a specific period, realistic, and determined between the patient and the anesthesiologist as well as collaboration with medical personnel.

Implementation: The anesthesiologist implements the intervention plan for the care of anesthesia arrangement in a comprehensive, effective, efficient, and safe manner based on evidence-based to the patient in the

form of curative, preventive, promotive, and rehabilitative efforts carried out mandiei while collaboration with referrals to delegation of authority.

Evaluation: The anesthesiologist conducts a systematic and continuous evaluation to see the effectiveness of the anesthesia arrangement care that has been provided in accordance with changes in the development of the patient's condition.

Documentation: Documentation of anesthesia arrangement care is an understanding and skill in applying standards well. Because documentation is a legal aspect for responsibility and liability.

In the anesthesia arrangement care service, the anesthesiologist at Tk.II Soepraoen Hospital has applied all items quite well to pre, intra, and post-anesthesia services for each patient but still not in accordance with the guidelines of the ASKAN book Edition I: October, 2023

4. Product Evaluation

Product evaluation aims to evaluate whether the program is achieving the set goals and whether the results achieved are in line with expectations. Information about these activities determines whether the program can be continued, changed or even stopped (Julianto & Fitriah, 2021). Program outcomes are compared to program objectives, and the match between expectations and actual outcomes (Lee et al., 2019). Documentation has not fully adapted the latest US books. But the content in the ASKAN book has been applied to patients, only the redaction or the use of sentences is different, for example in anesthesia health problems (MKA) is not in accordance with the medical record.

5. Outcome

Outcome is the outcome of a patient's treatment over time. Improving patient health outcomes should be a key goal of patient care. Healthcare outcomes are a measure of true health quality (Pantaleon, 2019). The purpose of hemodynamic monitoring is to detect, identify physiological abnormalities early and monitor the treatment given to obtain information on the body's homeostatic balance (Pramono, 2015). The outcome of this study was the hemodynamics of post-anesthesia patients. Hemodynamics is a cardiovascular blood flow system that runs dynamically, has a hemostatic function and works autoregulated. The anesthesiologist provides the best service for the patient's hemodynamics to remain stable within normal limits.

Patients with comorbidities and complications as much as possible are fully monitored. If the patient is monitored further, the patient will be transferred to the intensive care unit. If the patient does not have complications then it can be transferred to the inpatient room.

AUTHOR CONTRIBUTION

Annes Rindy Permana conducted interviews, observations, and review documents to the research location in order to obtain information related to anesthesia arrangement care (pre, intra, and post) at the Central Surgical Installation of dr. Soepraoen Kesdam V/Brawijaya Malang Hospital.

Argyo Demartoto as supervisor I who directs the author in preparing the research. Bhisma Murti as the supervisor II who guides, directs, and evaluates the author in the preparation of the article.

CONFLICT OF INTEREST

There is no conflict of interest in this study.

FUNDING AND SPONSORSHIP

The study is founded by the first author.

ACKNOWLEDGEMENT

The author expresses his deep gratitude to the research subjects for the availability of time that has been given. The author also thanks all

parties who played a role in the preparation of this article.

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