



IMPLEMENTATION OF ANESTHESIA MANAGEMENT CARE (ASKAN) IN PRE-REGIONAL ANESTHESIA

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ABSTRACT

Anesthesia administrators have the main duties in the anesthesia management care service (ASKAN) which includes pre-, intra- and post-anesthesia anesthesia services. Knowledge about writing anesthesia is still lacking. Insufficient knowledge will impact patient satisfaction. The implementation of ASKAN still has different understandings between fellow anesthesia administrators in the implementation of anesthesia management care. This study aims to find out how ASKAN is implemented in pre-regional anesthesia patients. So it can be used as material to set ASKAN standards for regional anesthesia patients. This research uses a qualitative descriptive method with a focus group discussion (FGD) approach. There were 7 participants in this study who met the inclusion criteria. Sample selection was carried out using the total sampling carried out with zoom media. Researchers act as measuring tools and ask semi-structured questions. Analysis of this research data uses Content Analysis. The recording results were typed and analyzed using an inductive thematic approach which was then systematically identified throughout the data set. The assessment carried out during regional anesthesia is a history of the disease with AMPLE, a physical examination that focuses on the spine and extremities. Apart from focusing on regional anesthesia, the anesthetist also reviews general anesthesia preparations such as LEMONS, MOANS. Psychological preparation of the patient before surgery and physical preparation of the patient such as meeting hemodynamics is a priority so that problems do not occur during intra-anesthesia. Anesthetic problems that often arise during regional anesthesia are cardiovascular problems, anxiety, pain, nausea and vomiting. The results of this research can be used by other people, especially the anesthesia management profession, as a guide for providing anesthesia management care in regional anesthesia procedures.

Keywords: anesthesia management care; anesthesia management; regional anesthesia

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INTRODUCTION

Anesthesia services are medical procedures that must be carried out by health workers who have expertise and authority in the field of anesthesia services, namely specialist doctors in anesthesiology, whose implementation can be assisted by an anesthesiologist. (Anesthesia Professional Professional Standards, 2020). An anesthetist is any person who has completed education in the field of anesthesia nursing or anesthesia director in accordance with statutory provisions (Permit and Implementation of Anesthesia Practice, 2016). Anesthesia practitioners have competency standards in accordance with statutory provisions which are marked by having an Anesthesia Staff Registration Certificate (STRPA). Anesthesia administrators have an obligation to provide anesthesia management care in accordance with their area of expertise and comply with professional standards, service standards and standard operational procedures. (Permit and Implementation of Anesthesia Practice, 2016).

Anesthetists provide anesthesia care to patients before, during, and after surgery as well as administer anesthetic drugs and continuously monitor every biological function of the patient's body during surgery. (The International Federation of Nurse Anesthetists, 2016). Anesthesia administrators have the main task in the anesthesia administration care service (ASKAN) which includes anesthesia services in pre, intra and post anesthesia with an anesthesia management method approach including assessment, analysis and determination of problems, intervention planning, implementation and evaluation. Knowledge about writing anesthesia is still lacking. Insufficient knowledge will impact patient satisfaction. Knowledge of anesthetists regarding pre-anesthesia assessment in the poor knowledge category was 4.8%, accompanied by poor attitudes at 2.9%. Meanwhile, the level of compliance of anesthetists in the less compliant category was 23.1%, and 1.9%. included in the non-compliant category (Silva, 2022). The compliance of the anesthetist has a direct impact on the role as a care provider which is influenced by caring and motivation. Research conducted on anesthetists at PKU Muhammadiyah Hospital Yogyakarta found that 95.2% of them behaved caringly and said that 96.8% of patients were satisfied. (Rahma, 2020). Good internal motivation is related to the completeness of documentation of anesthesia nursing care (Annisa, 2018).

ASKAN has been implemented well in education and in services, but the writing of ASKAN still has many differences between institutions. Research conducted to the anesthesia staff, it was found that the anesthesia staff was able to explain anesthesia nursing care which included pre, intra and post anesthesia. Documentation of anesthesia nursing care carried out verbally was not implemented as much as 40%. Then the obstacle experienced by anesthesia nurses in carrying out documentation is the lack of a format for writing anesthesia nursing documentation (Wanna De, 2014). The SOP for Anesthesia Nursing Care and the average level of compliance of anesthesia nurses with standards of anesthesia nursing care is only 61.1 percent which is influenced by the knowledge and attitudes of nurse anesthetists. (Hajar, 2005) Providing anesthesia management care (ASKAN) is studied in the world of education during formal education. The researcher's experience in guiding the clinical practice of students of the D IV Anesthesiology Nursing Study Program at the Bali Institute of Technology and Health from 2018 until now found different understandings between fellow anesthetists in the application of anesthesia management care. Research conducted on 4 informants of anesthesia administrators at the central surgical installation of PKU Muhammadiyah Hospital, Yogyakarta city, namely that anesthesia administrators did not find it difficult to implement ASKAN for post-general anesthesia patients, but there were differences in filling out diagnosis documentation and ASKAN plans, namely with nursing care. (Fahrizal, 2019). This study aims to find out how ASKAN is implemented in regional anesthesia patients. So it can be used as material to set ASKAN standards for regional anesthesia patients.

METHOD

This research method uses a qualitative descriptive method with a focus group discussion (FGD) approach. There were 7 participants in this study who met the inclusion criteria, namely All anesthetists who work in the Operating Room at Kertha Usada Singaraja Hospital, with the following criteria: Anesthetists with graduates of D III Nursing Anesthesia, D IV Nursing Anesthesia and D III Nursing with Anesthesia Training, have a Certificate of Registration (STR) for Anesthesia Nursing, have Anesthesia Practitioner License (SIPPA). Sample selection was carried out by total sampling. Data collection begins by making an appointment with participants and conveying the research objectives. This research carried out via zoom media on 23 December 2022 which was carried out by researchers as a measuring tool and asked semi-structured questions. The informed consent sheet was signed by each

participant (where participant anonymity and confidentiality were guaranteed). The research was approved by the ITEKES Bali Medical Ethics Commission with NO. 04.0561.1/KEPITEKES-BALI/X/2022. During focus group discussions, the moderator follows the question guide but asks side questions to obtain more in-depth information about the topic, and shows enough flexibility to allow for open discussion. The group discussion lasted 100 minutes, facilitated by a moderator (researcher) and an assistant moderator (observer), who took notes during the presentation and ensured the moderator did not ignore participants who tried to add comments. The results of the discussion were recorded with permission from the participants. Data analysis in this research used Content Analysis. The recording results were typed in MS Word. Using an inductive thematic approach which was then systematically identified throughout the data set.

Table 1.
Focus group discussion guide

Question Type	Question
Opening	What is your name and what is your experience in anesthesia?
Introduction	professional standards for anesthetists
Transition	How is Askan implemented?
Key	How to study formulation of health problems in regional anesthesia Regional anesthesia patient preparation anesthesia Regional anesthesia patient preparation
Closing	Closing

RESULTS

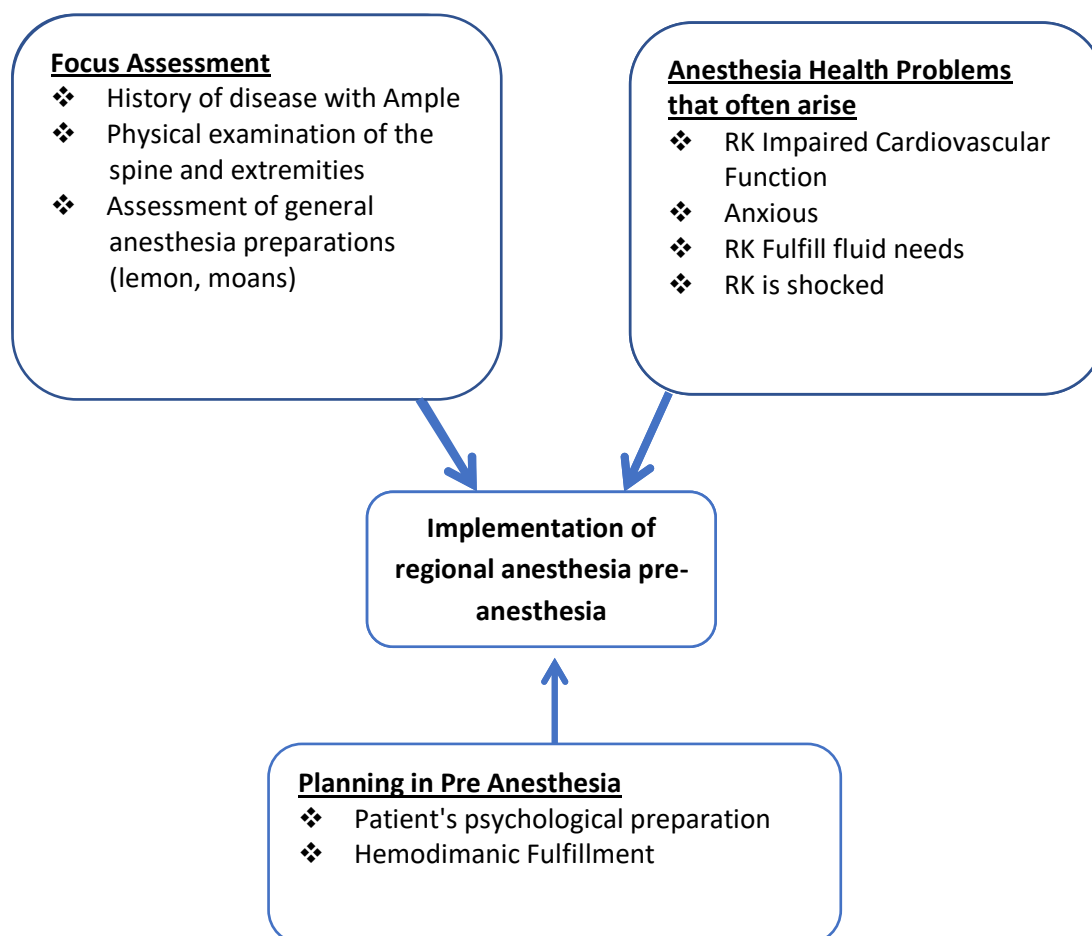


Figure 1. Implementation of anesthesia management care in regional anesthesia

Participants consisted of 7 anesthetists who met the inclusion criteria and experience working in the operating room

Table 2.
Participant characteristics

Participant	Anesthesia Experience	Current experience of anesthesia in hospital
1	27 years	6 years
2	6 years	6 years
3	15 years	15 years
4	19 years old	19 years old
5	22 years	22 years
6	5 years	5 years
7	8 years	8 years

Table 2, the experience of anesthetists at Kertha Usadha Hospital is a maximum of 22 years and a minimum of 5 years. In this research, 3 themes were obtained, namely; (1) Assessment of pre-regional anesthesia focus, (2) Pre-anesthesia planning in patients with regional anesthesia, (3) Anesthesia health problems that often arise in regional anesthesia.

Pre-regional anesthesia focus assessment

Participants conveyed their time and experience in providing care to patients with regional anesthesia. An important assessment carried out in regional anesthesia is a history of illness with AMPLE (Allergy, Medication, Past illness, last meal, event/environment), physical examination that focuses on the spine and extremities. Apart from focusing on regional anesthesia, the anesthetist also reviews general anesthesia preparations such as LEMONS, MOANS. The following are participant statements that support the theme:

"Basically we still prepare patients both regionally and generally, but there is a physical examination focused on the spine and AMPLE" (participant 1)

"The focus of the physical examination is the spine, sir, because the patient will undergo regional anesthesia but don't forget the LEMON examination because intubation will be carried out if it fails" (participant 3)

"I agree with you, we are limited in time here so we focus on the spine and AMPLE". (participant 4)

"Ample assessment examinations are the most important thing we do, and of course we have to prepare the patient physically, such as the bones of the extremities and spine" (participant 5).

Preanesthesia planning in patients with regional anesthesia

Participants conveyed about the planning carried out before anesthesia. Participants said that psychological preparation of the patient before surgery and physical preparation of the patient such as compliance with hemodynamics are priorities so that problems do not occur during intra-anesthesia.

"We are preventative, sir, later we will prepare patient education about the anesthesia that will be carried out, and we prepare the patient such as preparing the patient for fasting and worrying more, sir" (participant 1)

"Patient preparation is the most important thing, sir. Especially the patient's mental state because if the patient's mental state is anxious it will disrupt hemodynamics so that it will have an internal impact later. We should prepare 1 day before surgery" (participant 2)

"Prepare your patient's psychology. Yes, we provide education about anesthesia to provide a feeling of security, comfort, reduce anxiety, provide an opportunity to pray, calm intra- and post-operatively and the actions and effects afterward. After that, we also do TV and fulfill the patient's fluid needs before surgery" (participant 3)

"This is unique in anesthesia, sir, so we have to be able to predict the possibility of what will happen internally. We prepare the equipment well, prepare the patient according to the patient's hemodynamic needs and we also classify ASA" (participant 5)

"I agree with you, here it is true that patient preparation is the main thing, especially hemodynamics in preventing the risk of complications from cardiovascular dysfunction, which is the focus, but we cannot ignore the patient's anxiety". (participant 7)

Anesthesia health problems that often arise in regional anesthesia

Participants mentioned problems that often arise in patients with regional anesthesia. Anesthetic problems that often arise during regional anesthesia are cardiovascular problems, anxiety, pain, nausea and vomiting

"The problem is usually the father's hemodynamics, because after administering the medication the hemorrhage becomes disturbed, and he becomes nauseous, vomiting, anxious". (participant 3)

"Apart from hemodynamic problems, I often experience anxiety, father, because it happens very often" (participant 5)

"When it comes to pain, it really depends on the patient's illness, sir, then there is hypotension, chills and nausea, vomiting, sir". (participant 6)

"I'm the same as the others, but here I emphasize that there are problems that we can handle ourselves or we need collaborative action" (participant 7)

DISCUSSION

Work experience is the knowledge and skills possessed as a result of working over a certain period of time. The maximum experience of an anesthetist at Kertha Usadha Hospital is 22 years and the minimum is 5 years. The more work experience you have, the more optimal your performance will be. A lot of work experience can improve employee performance optimally (Mayarani et al., 2018). The performance of health workers in using PPE is influenced by age, length of work, knowledge and attitudes at Banjarbaru Regional Hospital (Apriluana et al., 2016). Research conducted on nurses regarding compliance with surgical fillings safety checklist in the work experience group ≥ 3 years with 60% complete and correct filling (Selano et al., 2019). This causes work experience to be an important factor influencing performance. Long work experience can provide comprehensive anesthesia care services. Anesthesia management care (ASKAN) consists of assessment, health problems, intervention action plans, implementation and evaluation.

Assessment is the process of collecting all accurate, relevant and complete information from all sources related to the patient's condition. The ASKAN assessment in regional anesthesia focuses on the history of the disease with AMPLE, a physical examination that focuses on the spine and extremities. Apart from focusing on regional anesthesia, the anesthetist also reviews general anesthesia preparations such as LEMONS, MOANS. AMPLE Assessment This is an assessment used to review health history, including assessing the history of allergies, history

of current medication, history of illnesses the client has experienced, history of previous eating and history of previous bad habits. History assessment is a mandatory assessment in every anesthesia administration care (ASKAN) provided, however in the ASKAN Regional anesthesia assessment is of particular concern because the anesthetic drugs given will affect the cardiovascular system so that cardiovascular comorbidities become the focus. Research conducted by (Nurcahyo, 2019) entitled Regional Anesthesia in Patients with Heart Disease/Unstable Hemodynamics, it was found that regional anesthesia is superior to general anesthesia. Disadvantages of regional anesthesia include hypotension from uncontrolled sympathetic blockade and the need for volume loading which can lead to ischemia. Tachycardia is the single most common event that is often associated with ischemia and causes an increase in demand and a decrease in oxygen supply which can harm the myocardium and is prone to causing ischemic changes in patients. The average systolic blood pressure before spinal anesthesia in patients in the operating room compared to after spinal anesthesia decreased in the operating room at RSUD Dr. Moewardi (Harjono et al., 2015). Another study carried out is the LEMON study which is intended to determine the difficulty of intubation. Intubation is generally performed on patients undergoing general anesthesia, but lemons assessment is a mandatory assessment before anesthesia because it is to anticipate problems in regional anesthesia such as anesthesia failure and height of the anesthesia spinal block.

Participants said that psychological preparation of the patient before surgery and physical preparation of the patient such as compliance with hemodynamics are priorities so that problems do not occur during intra-anesthesia. Good preparation will reduce possible problems. Anesthetic problems that often arise during regional anesthesia are cardiovascular problems, anxiety, pain, nausea and vomiting. There are still many patients who experience severe anxiety. Research obtained by Asnawi et al., (2022) the majority of patients had a level of severe anxiety/panic as much as 56.6%. Psychological management of anxiety should be a special concern for patients before surgery. Research conducted on post-SC mothers found that 41.0% of patients experienced mild anxiety which resulted in delays in mobilization (Agustin et al., 2020). Good pre-anesthesia preparation will reduce anxiety which has an impact on hemodynamics.

The risk of complications of cardiovascular dysfunction or hemodynamic problems is often experienced by patients with regional anesthesia. The average systolic blood pressure 20 minutes before epidural anesthesia was performed was 134.75 mmHg and the average systolic blood pressure 20 minutes after epidural anesthesia was 110.85 mmHg. The average diastolic blood pressure 20 minutes before epidural anesthesia was performed was 81.80 mmHg and the average Diastolic blood pressure 20 minutes after epidural anesthesia was 64.90 mmHg (Nabhani et al., 2021). Health problems, the risk of complications, impaired cardiovascular function, can be caused by the regional anesthetic drugs given. The dose of local anesthetic drug that causes significant cardiovascular toxic symptoms is approximately three times greater than the dose of local anesthetic drug that causes central nervous system toxic symptoms. Cardiovascular toxicity is due to the drug's effects on smooth muscle and heart muscle. Local anesthetic drugs affect the electrical and mechanical activity of the heart (Farid et al., 2023).

Another problem experienced by patients undergoing regional anesthesia is nausea and vomiting. Nausea and vomiting can occur in patients who have a history of nausea and vomiting. Research conducted by Arisdiani & Asyrofi (2019) It was found that the patient had a history postoperative nausea and vomiting 56.7%. 50% felt nauseous for 2-4 hours in the last

12 hours, 51.7% felt nauseous 1-2 times in the last 12 hours, 56.7% felt mild stress due to nausea. Another study obtained 12 hours after surgery found that 56.7% experienced mild PONV and 43.3% experienced moderate PONV. 66.7%(Cing et al., 2022). This study has the disadvantage of a limited number of participants due to limited anesthesia staff. This research can be developed more broadly to include anesthesia administrators in Bali so that a special format can be created in providing anesthesia management care to patients with regional anesthesia. This research was also conducted using zoom media so there were network problems and it was not possible to directly observe the participants' expressions. Future research is expected to use direct interview methods.

CONCLUSION

The assessment carried out during regional anesthesia is a history of the disease with AMPLE, a physical examination that focuses on the spine and extremities. Apart from focusing on regional anesthesia, the anesthetist also reviews general anesthesia preparations such as LEMONS, MOANS. Psychological preparation of the patient before surgery and physical preparation of the patient such as meeting hemodynamics is a priority so that problems do not occur during intra-anesthesia, and 3) Anesthetic problems that often arise during regional anesthesia are cardiovascular problems, anxiety, pain, nausea and vomiting. The results of this research can be used by other people, especially the anesthesia management profession, as a guide for providing anesthesia management care in regional anesthesia procedures.

REFERENCES

- Agustin, R., Koeryaman, MT, & DA, IA (2020). Description of the Level of Anxiety, Mobilization, and Pain in Mothers Post Caesarean Section Operations at Dr. RSUD. Slamet Garut. *Bakti Tunas Husada Health Journal: Journal of Nursing Sciences, Health and Pharmacy Analysis*, 20(2), 223–234.
- Annisa, T. (2018). Factors that influence the completeness of documentation of anesthesia nursing care in four regional hospitals in the Special Region of Yogyakarta. Yogyakarta Ministry of Health Polytechnic.
- Apriluana, G., Khairiyati, L., & Setyaningrum, R. (2016). The relationship between age, gender, length of work, knowledge, attitudes and availability of personal protective equipment (PPE) with the behavior of using PPE among health workers. *Indonesian Journal of Public Health Publications*, 3(3).
- Arisdiani, T., & Asyrofi, A. (2019). Description of Nausea, Vomiting and Stress in Postoperative Patients. *Community of Publishing in Nursing*.
- Asnawi, A., Yudono, DT, & Kurniawan, WE (2022). Description of Preoperative Anxiety Levels of Patients Using Intravenous Regional Anesthesia in the Operating Room at the Tanjung Pura Regional General Hospital, North Sumatra Province. *National Seminar on Research and Community Service*, 66–71.
- Cing, MTGC, Hardiyani, T., & Hardini, DS (2022). Factors that influence the incidence of post-operative nausea and vomiting. *Poltekita: Journal of Health Sciences*, 16(1), 16–21.
- Fahrizal, AA (2019). Factors Affecting Work Stress of Nurse Anesthetists in the Alif Operating Room. Yogyakarta Ministry of Health Polytechnic.

- Farid, AF, Sudadi, & Artika, IGNR (2023). Intravenous Regional Anesthesia. *Journal of Anesthesia Complications*, 2(3 SE-Articles). <https://doi.org/10.22146/jka.v2i3.7215>
- Hajar, I. (2005). Compliance of Anesthesia nurses in providing standard Anesthesia nursing care services at the Bengkulu Provincial Government Hospital. Gadjah Mada University.
- Harjono, B., Anggraeni, T., & Astuti, FB (2015). The Relationship between Spinal Anesthesia and Lowering Blood Pressure in Patients in the Operating Room at Dr. Moewardi. Sahid University Surakarta.
- Anesthesia Professional Professional Standards, Pub. L.No. HK.01.07/MENKES/722/2020, 48 (2020).
- Mayarani, EI, Santoso, ADD, Riyandaru, GB, & Wardayati, SM (2018). The Influence of Work Experience and Internal Control on the Performance of Jember Lung Hospital Employees. *UNEJ E-Proceedings*, 158–168.
- Nabhani, N., Soedarmono, A., & Arifindi, A. (2021). Description of Hemodynamic Changes in Regional Anesthesia Using the Epidural Block Technique at the Cut Meutia Regional General Hospital, North Aceh. *Pharma Science Journal*, 4(2), 30–39.
- Nurcahyo, WI (2019). Regional Anesthesia in Patients with Heart Disease/Unstable Hemodynamics. *JAI (Indonesian Journal of Anesthesiology)*, 11(1), 48. <https://doi.org/10.14710/jai.v11i1.23934>
- Rahma, IF (2020). The Relationship between Caring Behavior of Anesthesia Nurses and Satisfaction with Pre-Anesthesia Services in General Anesthesia Patients at the Central Surgical Installation of PKU Muhammadiyah Hospital, Yogyakarta. PRODI CODE 14320# ANESTHESIOLOGY NURSING.
- Selano, MK, Kurniawan, YH, & Sambodo, P. (2019). Relationship between length of service for nurses and compliance with filling out the Surgical Safety Checklist in Central Surgical Installations. *Journal of Nursing Leadership and Management*, 2(1), 16–22.
- Silva, M. (2022). Description of the Level of Knowledge, Attitudes and Compliance of IPAI Bali Anesthesia Staff in Carrying Out Pre-Anesthesia Assessments in the Central Surgical Installation Room.
- The International Federation of Nurse Anesthetists. (2016). Code of Ethics, Standards of Practice, Monitoring and Education. *Australian Surveyor*, 26(1), 60–63. <https://doi.org/10.1080/00050326.1978.10441468>.
- Wanna De, A.V. (2014). Phenomenological Study of the Implementation of Documentation of Anesthesia Nursing Care at Sorong Regional Hospital, West Papua. Yogyakarta Ministry of Health Polytechnic.