Indonesian Journal of Global Health Research
Volume 7 Number 3, June 2025
e-ISSN 2715-1972; p-ISSN 2714-9749
http://jurnal.globalhealthsciencegroup.com/index.php/IJGHR

FACTORS INFLUENCING ANESTHESIOLOGISTS IN CONDUCTING PRE-ANESTHESIA ASSESSMENTS ON SURGICAL PATIENTS WITH CARDIOVASCULAR DISORDERS

Putu Atika Parwati*, Ni Luh Putu Lusiana Devi
Faculty of Health, Institut Teknologi dan Kesehatan Bali, Jl. Tukad Pakerisan No.90, Panjer, Denpasar Selatan, Denpasar, Bali 80225, Indonesia
*atikaparwati6@gmail.com

ABSTRACT
Pre-anesthesia assessment is very important in ensuring the success of surgical procedures, especially in cases involving comorbidities, such as cardiovascular disorders. Pre-anesthesia assessment is often only performed by 19.5% of anesthesiologists, and the results are not recorded immediately after the procedure in the patient's medical records due to time constraints. This study aims to determine the factors that influence anesthesiologists in conducting pre-anesthesia assessments on surgical patients with cardiovascular disorders. The research design used was a correlational analytical study with a cross-sectional approach. The population was anesthetists in Indonesia, and the sample was selected using purposive sampling. Univariate analysis was performed by determining the frequency distribution and percentage of general characteristics of respondents, while bivariate analysis with chi-square was performed to determine the relationship between factors affecting anesthetists in conducting pre-anesthesia assessment on surgical patients with cardiovascular disorders. The sample size in this study was 245 respondents. The results of the study showed that factors associated with the implementation of pre-anesthesia assessment in surgical patients with cardiovascular disorders were length of service (p 0.020), workload (p 0.018), and number of anesthesiologists (p 0.009).

Keywords: anesthesia; factors cardiovascular; pre-anesthesia assessment

How to cite (in APA style)
Parwati, P. A., & Devi, N. L. P. L. (2025). Factors Influencing Anesthesiologists in Conducting Pre-Anesthesia Assessments on Surgical Patients with Cardiovascular Disorders. Indonesian Journal of Global Health Research, 7(3), 1117-1122. https://doi.org/10.37287/ijghr.v7i3.7312.

INTRODUCTION

An anesthesiologist is anyone who has graduated from nursing education in the field of anesthesia or anesthesiology in accordance with the provisions of laws and regulations (Indonesian Ministry of Health, 2016). Anesthesia Technicians have primary duties in providing anesthesia care services, which include pre-anesthesia, intra-anesthesia, and post-anesthesia care in accordance with laws and regulations (Indonesian Ministry of Health, 2020). Anesthesia nurses have an area of competence built on a foundation consisting of legal ethics and patient safety, self-development and professionalism, and effective communication, supported by pillars in the form of a scientific basis in biomedicine, anesthesiology, and instrumentation, as well as clinical skills (Indonesian Ministry of Health, 2020).

The clinical skills of an anesthesiologist include the ability to provide anesthetic nursing care. Anesthetic nursing care is a comprehensive series of care activities for patients who are unable to help themselves during anesthetic procedures before, during, post-anesthesia, or other situations using the anesthetic nursing approach, which includes assessment, analysis and problem identification, intervention planning, implementation, and evaluation, followed by documentation (Indonesian Anesthesia Nurses Association, 2018).

Pre-anesthesia assessment is an evaluation of the patient's condition before anesthesia is administered (Ministry of Health, 2011). Pre-anesthesia assessment is very important in ensuring the success of surgical procedures, especially in cases involving comorbidities, such

as in patients with cardiovascular disorders. Competent and responsible personnel conducting pre-anesthesia assessment can help prepare patients for the anesthesia process, ensuring that sedation planning and levels are appropriate for the patient (Hospital Accreditation Instrument, 2012). Anesthesia technicians have the authority to perform this assessment as stated in Permenkes No. 18 of 2016 concerning the license to practice as an anesthesia technician, chapter III, article 12, which states that anesthesia technicians can perform services under the supervision of an anesthesiologist or other doctor who has delegated their authority to them.

Pre-anesthesia assessments are often only performed by 19.5% of anesthetists, and the results of these assessments are not recorded immediately after the procedure on the patient's medical record. This occurs due to the limited time available to anesthetists during their rounds to assess the large number of patients who will undergo surgery in the ward. and 80.5% of anesthesiologists write the results of the pre-anesthesia assessment documentation in the patient's medical record immediately after the operation, because they must be on time in providing further treatment to the patient and are pressed for time with the next surgical patient (SNARS, 2018).

Based on the above background, it can be concluded that further research is needed on the factors that influence anesthesiologists in conducting pre-anesthesia assessments on surgical patients with cardiovascular disorders. This study aims to determine the factors that influence anesthesiologists in conducting pre-anesthesia assessments on surgical patients with cardiovascular disorders.

METHOD

This study used a cross-sectional correlation design. The study population consisted of all anesthesiologists in Indonesia. The sample in this study consisted of 254 anesthesiologists using purposive sampling. The inclusion criteria for this study were anesthesiologists who had an IPAI membership card, had an active Anesthesiologist Registration Certificate (STR), were working in the anesthesia department of a hospital, and were willing to be respondents by signing an informed consent form. The exclusion criteria for this study were IPAI members who were no longer active in providing anesthesia services and IPAI members who were on leave from work.

Data collection was carried out by approaching the chairperson of the IPAI Regional Representative Council (DPD). Through the IPAI DPD, prospective respondents were gathered online via a WhatsApp group to be given an explanation about the study. After being given an explanation, prospective respondents were given informed consent as a sign of their agreement to become research respondents. Prospective respondents who were willing to participate were then given a questionnaire in the form of a Google form containing statements. The questionnaire took 30 minutes to complete.

RESULT

Based on table 1, the majority of anesthetists are male, namely 184 people (72%), the majority have fewer than 4 anesthetists, namely 138 people (54%), the majority have worked for < 10 years, namely 130 people (51%), and the majority have a moderate workload, namely 162 people (64%).

Table 1.
General characteristics of anesthetists (n=254)

Characteristics	f	%
Gender		
Man	184	72
Woman	70	28
Number of Anesthesia Technicians		
≤ 4 person	138	54
> 4 person	116	46
Length of Service		
< 10 year	130	51
≥ 10 year	124	49
Length of Service		
Low	44	18
Middle	162	64
High	42	18

Table 2.
Level of pre-anesthesia assessment implementation in surgical patients with cardiovascular disorders (n=254)

Assessment Level	f	%
Good	162	63
Enough	92	37

Based on table 2, the majority of anesthesiologists performed pre-anesthesia assessments on surgical patients with cardiovascular disorders at a good level, namely 162 people (63%).

Table 3.
Relationship between factors affecting anesthesiologists in conducting pre-anesthesia assessments on surgical patients with cardiovascular disorders (n=254)

Factor	Level of Education Provision		
	Less f (%)	Good f (%)	p-value
Number of Anesthesia Technicians			
< 4 person	60 (43.5)	78 (56.5)	0.009
≥ 4 person	32 (27.6)	84 (72.4)	
Length of Service			
< 10 year	56 (43.1)	74 (56.9)	0.020
≥ 10 year	36 (29.0)	88 (71.0)	
Length of Service			
Low	24 (54.5)	20 (45.5)	0.018
Middle	56 (33.3)	112 (66.7)	
High	12 (28.6)	30 (71.4)	

Based on table 3, it is known that the level of assessment implementation has a significant relationship with the number of anesthetists (p 0.009), length of service (p 0.020), and workload (p 0.018).

DISCUSSION

Based on the results of the study, it was found that most of the assessment implementation levels were in the good category, namely 162 people (63.8%). The level of assessment implementation is greatly influenced by various factors. This study found that length of service, number of anesthetists, and workload were significantly related to the level of assessment implementation. Longer service provides anesthetists with more experience in dealing with various clinical cases. With more experience, anesthetists tend to have a better understanding of the patient's medical condition and can perform anesthesia assessments more thoroughly and accurately.

Aiken et al. (2002) revealed that medical personnel with longer working periods have a deeper understanding of the physiological and pharmacological aspects that influence the selection of the appropriate type of anesthesia, as well as how to manage potential complications that may occur. Work experience also enables medical personnel to identify more relevant risk factors in anesthesia assessment. For example, more experienced medical personnel can more easily detect signs of less obvious medical conditions, such as cardiovascular or respiratory disorders, which could affect the course of anesthesia.

Hayes et al. (2017) stated that experience improves the clinical ability of medical personnel in recognizing potential anesthesia problems that may be overlooked by less experienced medical personnel. Moulton et al. (2019) state that longer periods of employment allow medical personnel to hone their clinical decision-making skills based on direct experience, leading to improved quality of anesthesia assessment. Chan et al. (2014) show that continuous training and regular updates of medical knowledge can improve anesthesia assessment skills in both new and experienced medical personnel.

In addition to working hours, having an adequate number of anesthesia nurses plays a major role in the smooth implementation of anesthesia assessment. With sufficient nurses, they can focus more on each patient and carry out assessments carefully, as there is more time available for in-depth evaluation. Aiken et al. (2002) revealed that nurses who have more time to interact with patients tend to provide more comprehensive assessments. Conversely, with a limited number of nurses, assessments are often carried out in a hurry, which may risk overlooking important aspects of the patient's medical history. If there are sufficient anesthesia nurses, they can conduct more detailed assessments and identify risk factors that may not be detected if the assessment is conducted in a hurry. This helps in making more appropriate decisions regarding the choice of anesthesia technique to be used.

The workload of anesthesia nurses also has a significant relationship with the implementation of assessments. Jones et al. (2019) stated that nurses with excessive workloads would find it difficult to provide sufficient attention to each patient, which could reduce the quality of the assessments performed. A high workload causes nurses to feel stressed and rushed, so that assessments may not be carried out thoroughly or some important factors may be overlooked. Research by Hayes et al. (2017) shows that a combination of sufficient numbers of anesthesia nurses and a controlled workload has a major influence on the quality of anesthesia services, including the implementation of assessments. If the number of anesthesia nurses is limited and their workload is high, the quality of assessment may decline due to limited time to collect accurate and in-depth information from patients. Conversely, with sufficient anesthesia nurses and a balanced workload, the assessment process becomes more thorough and can help detect potential problems before anesthesia is administered.

Based on this discussion, it can be concluded that an adequate number of anesthesia nurses and good workload management are directly related to a higher level of anesthesia assessment. With a sufficient number of nurses and a controlled workload, assessments can be carried out thoroughly and effectively, thereby improving patient safety. Conversely, if the number of nurses is limited and the workload is excessive, anesthesia assessment may be compromised, potentially increasing anesthesia-related risks. Therefore, hospital management must pay attention to the number of anesthesia nurses and their workload to ensure optimal quality of anesthesia assessment.

CONCLUSION

This study concludes that length of service is positively related to the level of anesthesia assessment implementation. Longer experience in the medical profession allows medical

personnel to be more thorough, efficient, and skilled in performing anesthesia assessments. Although other factors such as continuing education and standard protocols also influence assessment implementation, length of service remains an important factor in improving the quality and accuracy of anesthesia assessments. It can also be concluded that an adequate number of anesthesia nurses and good workload management are directly related to better anesthesia assessment implementation. With a sufficient number of nurses and a controlled workload, assessments can be carried out thoroughly and effectively, thereby improving patient safety. Conversely, if the number of nurses is limited and the workload is excessive, anesthesia assessment may be disrupted, potentially increasing anesthesia-related risks.

REFERENCES

Agustina, E., Wardhani, V., &Astari., A. (2020). Asesmen pra anestesi: bukan sekedar kepatuhan.Journal of Hospital Accreditation, 2020 Vol 01, Edisi 4

BPS. (2021b). Sosial dan Kependudukan. Diakses pada 10 Januari 2021, dari https://www.bps.go.id/subject/12/kependudukan.html#subjekViewTab1.

Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. JAMA, 288(16), 1987–1993.

Chan, C. W., & Mion, L. C. (2014). Effect of fatigue on communication skills and patient safety. Nursing Research, 61(3), 173-180.

Hayes, B., Douglas, C., & Bonner, A. (2017). Work environment, job satisfaction, stress and burnout among haemodialysis nurses. Journal of Nursing Management, 23(5), 588-598.

Hidayat. (2014). Metode Penelitian Keperawatan dan Teknik Analisa Data. Salemba Medika.

IPAI (2018). Asuhan kepenataan pra, intra, pasca anestesi. Jakarta: Kementerian Kesehatan Republik Indonesia.

IPAI. (2021). Overview anggota IPAI di Indonesia. Diakses pada 31 Januari 2021, dari http://www.ikatanpenataanestesiindonesia.org/

Jones, T. L., Hamilton, P., & Murry, N. (2019). Unfinished nursing care, missed care, and implicit rationing: State of the science. Journal of Nursing Scholarship, 47(5), 484-492

Kementerian Kesehatan Republik Indonesia. (2012). Standar Akreditas Rumah Sakit, Kerjasama Direktorat Jenderal Bina Upaya Kesehatan Kementerian Kesehatan Republik Indonesia dengan Komisi Akreditasi Rumah Sakit (KARS). Jakarta

Kemenkes RI. (2016). Peraturan Menteri Kesehatan Republik Indonesia Nomor 18 Tahun 2016 Tentang Izin Dan Penyelenggaraan Praktik Penata Anestesi Dengan Rahmat Tuhan Yang Maha Esa Menteri Kesehatan Republik Indonesia, Jakarta: Kemenkes RI.

Kemenkes. (2020). Keputusan Menteri Kesehatan Republik Indonesia Nomor Hk.01.07/Menkes/722/2020 Tentang Standar Profesi Penata Anestesi Dengan Rahmat Tuhan Yang Maha Esa Menteri Kesehatan Republik Indonesia, Jakarta: Kemenkes RI.

Mangku. 2018. Buku ajar ilmu anestesi dan reanimasi. Jakarta Barat : Permata Puri Media

Moulton, C. A., Dubrowski, A., Macrae, H., Graham, B., & Reznick, R. K. (2019). Educational interventions in anesthesia care: the role of digital media in improving patient knowledge and satisfaction. Journal of Anesthesia Education, 36(4), 312-320

Nursalam. (2016). Metodologi Penelitian Ilmu Keperawatan Pendekatan Praktis (Edisi 4). Jakarta: Salemba Medika.

Notoatmodjo, S. (2012b). *Pendidikan dan perilaku kesehatan*. Jakarta:Rineka Cipta.

Putra, A. S. (2012). Analisis Pengaruh Beban Kerja Terhadap Kinerja Karyawan Divisi Marketing dan Kredit PT. WOM Finance Cabang Depok.Skripsi.Institut Pertanian Bogor.

Sabiq, A., & Rahayu, F. D. (2017). Hubungan gaji dengan kepuasan kerja pada pegawai negeri sipil. *Jurnal Psikologi*, *4*(2), 85–91.

Sucipto, C. D. (2014). *Keselamatan dan kesehatan kerja*. Yogyakarta: Gosyen Publishing.

Sulistyowati, L. S., Ginting, M., Syayadi, I., & Rudiyanto, C. (2011). Promosi kesehatan di

daerah bermasalah kesehatan: Panduan petugas kesehatan di puskesmas. Jakarta:Kemenkes RI.

Swarjana. 2015. Metodelogi penelitian kesehatan. Yogyakarta: Penerbit ANDI