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Implementation of General Pre-Anesthesia Assessment in The General Installation Room in The Surgical Installation Room of X Regional Hospital

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ABSTRACT

Anesthesia services are part of perioperative services that have a major influence in determining the success of adequate surgical procedures and avoiding the risk of anesthetic injury to patients. Anesthesia providers in carrying out their professional practices are authorized to provide anesthesia care services in pre-anesthetic assessments. To determine the implementation of pre-anesthetic assessments in patients with general anesthesia in the Central Surgery Installation Room of Buleleng District Hospital. This study used a qualitative research design, and a Multiple Case Study research method with a Descriptive approach. The number of participants in this study was 2 participants who met the inclusion criteria. Data collection tools used interview checklists, Observation sheets, and Pre-Anesthesia Assessment Implementation Documentation sheets. The results of this study on the examination of the participant's anamnesis carried out an assessment using the Foundational Four and Sacred Seven, on the physical examination the participant did not carry out BMI and peripheral nerve disorders. And in the pre-anesthesia documentation, the participant wrote the assessment results on the documentation sheet during the operation and post-operation. The anesthesia technician in carrying out the assessment of the patient's anamnesis, reviewing the physical examination, supporting examination and the patient's psychology almost in accordance with the applicable SOP, except for the examination of BMI, peripheral nerve disorders, providing therapeutic greetings at the end of the procedure and in documenting the procedure did not comply with the applicable SOP, this was due to the short time during pre-anesthesia.

Keywords: *Pre-Anesthesia, General Anesthesia, Anesthesiologist, Pre-Anesthesia Assessment*

1. INTRODUCTION

Anesthesia and Reanimation is a branch of science that studies the management to "turn off" feelings, both pain, fear and other discomforts so that the patient is comfortable and the management to maintain/maintain the life and life of the patient during "death" due to anesthetic drugs [1]. Anesthesiology nursing care/anesthesia management is a series of comprehensive care activities for patients who are unable to help themselves in anesthesia services before, during, after anesthesia or other situations that interfere with a person's health with an askan method approach including assessment, analysis and determination of problems, action plans/interventions and evaluations [2].

Minister of Health Regulation No. 18 of 2016, Chapter III, Article 10 regulates the permit to organize anesthesia technician practice, that anesthesia technicians in carrying out their professional practice are authorized to provide anesthesia care services in pre-anesthesia assessment. To do this, an anesthesia technician must have knowledge, attitudes and skills about pre-anesthesia assessment. Pre-anesthesia assessment is the basis for planning to find out the findings on the monitor during anesthesia, after anesthesia and can be done before being admitted to hospital or before surgery. Pre-anesthesia assessment aims to find out problems that will occur during intra and post-operatively and to avoid the risk of anesthesia injury.

Pre-anesthesia assessment is often only carried out by 19.5% of anesthesiologists and the results of the documentation are not written immediately after the procedure is performed on the patient's medical record documentation sheet. This occurs due to the limited time of the

anesthesiologist during the visit to review the number of patients who will be operated on 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 takes place, this occurs because the anesthesiologist must be on time in providing further action to the patient and is pressed for time for the next surgical patient [3].

Anesthesia preparation at Pademangan Regional Hospital starts from Pre-Anesthesia, where before the patient is given general anesthesia, they are met by an anesthesiologist to assess the level of difficulty of the anesthesia before the anesthesia procedure is performed.

Based on the results of the researcher's preliminary study while at Pademangan Hospital, objective data was obtained from the experience and interviews of one of the anesthesia specialists at Pademangan Hospital, it was found that for officers who carry out pre-anesthesia assessments, namely anesthesia technicians, there is one person per day at Pademangan Hospital. The implementation of pre-anesthesia assessments at Pademangan Hospital is carried out by anesthesia technicians in the ward room during the pre-visit to determine the patient's assessment status and is carried out by anesthesia technicians in the preparation room including examining the patient's status, the anesthesia plan to be carried out, examining the patient's hemodynamics, the patient's mental readiness, examining the patient's fasting period. According to the results of an interview with one of the anesthesia specialists at Pademangan Hospital, there is often a risk of anesthesia injury due to improper implementation of the pre-anesthesia assessment. For example, in asking about allergies from patients, the patient's honesty about fasting, previous medical history, loose teeth and other assessments that are very important to be assessed to avoid the risk of anesthesia injury.

Based on the description above, it is clear that there is a difference between the prevailing theory and the actions taken by anesthesiologists at Pademangan Regional Hospital. Researchers are interested in conducting research on the implementation of pre-anesthetic assessment in patients with general anesthesia in the Surgical Installation Room of Pademangan Regional Hospital.

2. METHODS

2.1 Research Design

This research is qualitative research. The research used is Multiple Case Study research with a Descriptive approach. Descriptive multiple case study research is research with a case study method or approach. This research focuses systematically and subjectively on a particular object that studies it as a case. Case study data can be obtained from all parties concerned, in other words in this study collected from various sources [4]. This research method is a descriptive research design, namely research that can explain phenomena in order to answer research questions. This descriptive design can be found in both qualitative and quantitative studies [5]. In this study, the researcher examined the implementation of pre-anesthesia assessment in patients with general anesthesia in the central surgical installation room.

2.2 Research Variables

Variable is a concept that is operationalized, applied and becomes a property of an object [6]. This study consists of two variables, namely:

1. Independent Variables

Independent variables are variables that cause changes to other variables. So, this variable is called a free variable [6]. The free variable in this study is the type of action.

2. Dependent Variable

The dependent variable is a variable that experiences changes as a result of changes in the independent variable. So, this dependent variable is often known as the bound variable or dependent variable [6]. The dependent variable in this study is the anesthesiologist who performs pre-anesthesia on general anesthesia.

3. Operational Definition

The operational definition of a variable is a definition of a variable based on a theoretical concept but is operational in nature, so that the variable can be measured or even tested by both researchers and other researchers [6].

2.3 Population and Sample

1. Participant

The data in this study used documents on the implementation of pre-anesthesia assessments carried out by 2 anesthesiologists at Pademangan Regional Hospital. Each anesthesiologist with the same level of education finally took data from 1 document on the implementation of pre-anesthesia assessments, so that the total number was 2 documents. This method uses sample selection criteria divided into inclusion and exclusion. The inclusion criteria for this study are:

a. An anesthesiologist who is actively working at the Surgical Installation of Pademangan Regional Hospital.
b. Anesthesiologist in charge of Pre-Anesthesia Assessment at the Surgical Installation of Pademangan Regional Hospital.
c. Anesthesiologists who are willing to be research participants at the Surgical Installation of Pademangan Regional Hospital.
d. Cooperative Anesthesia Technician during data collection. While the exclusion criteria of this study are:
    1) Anesthesia providers who are not willing to participate in research.
    2) The Anesthesiologist was ill and unable to attend the interview.
    3) Officers who are not graduates/trained in anesthesia.

2. Research Ethics

Research ethics issues are very important issues in research, considering the importance and seriousness of ethical aspects in research, a researcher must really adhere to several ethical principles in research [6]. Ethical issues that must be considered include the following.

a. Informed Consent Form
b. Anonymity
c. Confidentiality
d. Beneficence

2.4 Place and Time of Research

1. Time

Research data collection was carried out for 1 week from July 22 to July 29, 2024.

2. Place

This research was conducted in the Surgical Installation Room of Pademangan Regional Hospital.

2.5 Data Collection

After research permit is obtained, it continues to the implementation stage, namely:

1. After obtaining permission from Pademangan Regional Hospital, the researcher explained the purpose of the research and asked for assistance from the head of the surgical room.
3. The researcher has determined the research population to be 2 people, then the researcher determined the sample using the multiple case study method by looking for 2 anesthesia technicians who were graduates and had anesthesia training.
3. The day before, the researcher had made a time contract with the officers at the surgical installation of Pademangan Regional Hospital.
4. When conducting research, researchers collected data through interviews and pre-anesthesia documentation sheets.
5. The data collection process is carried out until the amount of data required by the researcher is met.
6. The researcher would like to thank the officers and related parties for the smooth data collection process.
7. After all data is declared complete, the researcher then processes the data by analyzing the data according to the research variables.

2.6 Data Collection Tools

Data collection instruments are tools chosen and used by researchers in carrying out their activities to make them systematic and easier. Research instruments, which are defined as "tools", are means that can be realized in objects, for example: questionnaires, checklists, or interview guides (interview guides or interview schedules), observation sheets or observation guides (observation sheets or observation schedules), test questions, inventories, scales, and so on. Qualitative research that becomes an instrument or research tool is the researcher himself. Therefore, the researcher as an instrument must also be "validated" to what extent the qualitative researcher is ready to conduct research that then goes into the field. Validation of the researcher as an instrument includes: (1) validation of understanding of research methods, (2) mastery of insight into the field being studied, and (3) the researcher's readiness to enter the research object, both academically and logistically (Sugiyono, 2010).

Meanwhile, in this qualitative research, data collection is carried out in natural settings (natural conditions), primary data sources, and data collection techniques are more on participant observation, in-depth interviews, documentation and triangulation. Data collection is a process of procuring data for research purposes. Data collection techniques in this study are carried out by means of observation, interviews and documentation studies of participants or key people (Key Information). Each of these data collection techniques has uses such as observation techniques, interview techniques, documentation techniques

2.7 Data analysis

Case analysis is an in-depth study of an aspect of the social environment including the people in it which is carried out in such a way as to produce a well-organized and complete picture. Case studies can be conducted on an individual; a group of individuals (families, groups of pregnant women, breastfeeding mothers, the elderly, toddlers, etc.); a group of people (teachers, midwives, nurses, Batak people, etc.); human living environment (village, city, coast, etc.); or social institutions (marriage-divorce, education, religion, etc.). Cross-case analysis is a method that involves in-depth exploration of similarities and differences across cases with the aim of supporting generalization [6].

3. RESULTS AND DISCUSSION

3.1 Implementation of Pre-Anesthesia Anamnesis Assessment of Patients Undergoing General Anesthesia in the Surgical Installation Room of Pademangan Regional Hospital (Research Results).

From the results of interviews, observations, documentation and literature studies, the results of the implementation of pre-anesthesia patient anamnesis assessment carried out by general anesthesia by two participants who served as anesthesia technicians for more than 3 years were obtained. From the results in carrying out this anamnesis assessment, both anesthesia technicians carried out an anamnesis assessment action which actions followed the fundamental four and sacred seven, both technicians were also able to explain several steps in the anamnesis carried out during the assessment, including fasting anamnesis, comorbidities, especially asthma which is very much our first enemy as an anesthesia technician, history of allergies, history of asthma, dentures, daily habits, history of consuming drugs, right and left pulmonary auscultation, determining the Mallampati score asking about the history of the current illness, history of comorbidities, history of previous illnesses and history of illness in the patient's family. This is in line with the Regulation of the Minister of Health Article 10 Number 18 of 2016 which regulates everything related to the actions that must be carried out by an anesthesiologist in carrying out his work, in this case the actions that must be taken by an anesthesiologist in carrying out his duties are: pre-anesthesia, intra-anesthesia, and post-anesthesia actions. Pre-anesthesia assessment involves considering information from various sources including recent medical records, family and patient anamnesis, physical examination, and medical and laboratory test results [1].

In its implementation, things that must be studied in the implementation of anamnesis include patient identity or biodata, diseases that interfere with organ systems in relation to pre-anesthetic preparation and history of systemic diseases, history of drug use, history of surgery and anesthesia, history of allergies, and history of habits to the patient. From the results of interviews, observations, documentation and literature studies, it was found that both anesthesiologists carried out an assessment of patient identity, diseases that interfere with organ systems and history of systemic diseases, history of drug use, history of surgery and anesthesia, history of allergies, and history of habits in patients, this was proven by both anesthesiologists obtaining data by asking for patient identity, diseases that have been suffered both in the history of drug use, history of surgery and anesthesia, history of allergies, and history of habits in patients and to the patient's family, to re-confirm the answers from the patient and the patient's family, the anesthesiologist always connected the results of his study with the results contained in the patient's medical records that had previously been written during the assessment at the anesthesia and surgery polyclinics.

This is in line with the Regulation of the Ministry of Health No. 18 of 2016 Article 11 Paragraph 1 which stipulates that pre-anesthesia care services as referred to in Article 10 letter a are to conduct pre-anesthesia management assessments which include: Preparation of patient administration; Examination of vital signs; Other examinations required according to patient needs, either by inspection, palpation, or auscultation; Examination and assessment of the patient's physical status; Analysis of assessment results and formulating patient problems; Evaluation of pre-anesthesia service management actions, evaluating independently or collaboratively; Documenting the results of anamnesis or assessment. Also supported by the theory in the Book of Anesthesia and Reanimation by [1], that in the management of pre-anesthesia evaluation in anamnesis can be carried out with the patient himself or with the closest person (family / escort). Assessment of the patient's identity and the person in charge of the patient can be in the form of name, age, address and occupation. The importance of reviewing a special anamnesis related to surgical diseases that may cause disruption of organ system function. And in general anamnesis, the anesthesiologist must review the history of systemic diseases that have been suffered or are currently suffering from systemic diseases other than the surgical disease suffered which may complicate anesthesia such as allergies, diabetes mellitus, chronic lung disease, heart disease and hypertension, liver disease and kidney disease. History of use of drugs that have been/are being used that may interact with

anesthetic drugs, for example: corticosteroids, antihypertensive drugs, anti-diabetic drugs, aminoglycoside antibiotics, digitalis, diuretics, tranquilizers, monoamine oxidase enzyme inhibitors and bronchodilators. History of operations and anesthesia that have been experienced, how many times and the time interval, and whether the patient experienced complications at that time. History of allergies to drugs or others. Bad daily habits that can affect the course of anesthesia such as smoking, sedatives, alcohol or narcotics.

3.2 Implementation of Physical Examination Assessment of Pre-Anesthesia Patients with General Anesthesia in the Surgical Installation Room of Pademangan Regional Hospital.

From the results of interviews, observations, documentation and literature studies, the results of the implementation of physical examination assessments on pre-anesthesia patients with general anesthesia were obtained, the results obtained from the resource person Mr. D, that Mr. D in carrying out his examination on physical examinations which were divided into: general examination, examination of patient status, examination of psychological status and physical status of the patient, in conducting an examination of consciousness Mr. D assessed it spontaneously when the patient answered questions asked by Mr. D, in assessing motor skills Mr. D assessed it simultaneously with blood pressure, saturation and pulse examinations where Mr. D installed a device that was connected to a monitor in the preparation room, while to measure temperature Mr. D usually felt the patient's skin and if it felt hot then Mr. D took a thermometer to ensure the patient's body temperature value, in assessing weight for cooperative patients Mr. D recommended measuring weight again in the preparation room, however if the patient was not cooperative or an emergency patient Mr. D usually assessed weight through the patient's medical record, Mr. D in assessing the patient's status examination did not measure height with a tool but assessed it with the patient's medical record history, and Mr. D did not measure the BMI of general anesthesia patients, and in measuring fluid therapy Mr. D asked for information about the amount of fluid intake and the type of fluid intake through the room nurse who performed the operation during the preparation room, and reviewed the patient's medical record history. In the general examination, Mr. D carried out an assessment of the patient's Physical Status which assessed the patient's level of anxiety and pain, an examination of the airway (respiration) including an assessment of mallampati, cough, shortness of breath, and the use of dentures, in the examination of nerve disorders, Mr. D only examined the brain and spine without assessing the peripheral nerves, in the examination of heart and lung disorders, Mr. D assessed by means of Inspection, palpation, percussion and auscultation, and in the examination of the patient's history which included an assessment of previous illnesses that the patient had suffered, drug or food allergies, history of blood transfusions, history of smoking, history of drinking alcohol, history of previous drug consumption and history of disease complications.

Meanwhile, in the examination by the source Mr. J, Mr. J made an assessment that was almost the same as Mr. D, during the physical examination in measuring the patient's status, Mr. D assessed consciousness using the patient's spontaneity, and measured blood pressure and pulse through a device connected from the patient's body to the monitoring monitor in the preparation room, Mr. J in measuring temperature only looked at the patient's medical records without touching the patient's skin or measuring it again, in measuring weight and height, Mr. J measured it by looking at the patient's medical record history without measuring it again, in measuring fluid therapy, Mr. J looked at the patient's medical history whether the patient had a previous heart disease or not so that in giving it it would not burden the heart's work. In the general examination, Mr. J carried out an assessment of the patient's physical status which assessed the patient's level of anxiety and pain, an examination of the airway (respiration) including an assessment of mallampati, cough, shortness of breath, and the use of dentures, in the examination of nerve disorders, Mr. J only examined the brain and spine without assessing the peripheral nerves, in the examination of heart and lung

disorders, Mr. J assessed by means of inspection, palpation, percussion and auscultation, and in the examination of the patient's history which included an assessment of previous illnesses that the patient had suffered from, drug or food allergies, history of blood transfusions, history of smoking, history of drinking alcohol, history of previous drug consumption and history of disease complications.

In the Physical Examination there are several parts that are not carried out by participants, namely in the BMI examination section, and peripheral nerve disorder examination, This is due to the short time of the anesthesiologist in reviewing the physical examination both in the room visit and during pre-anesthesia, while according to the book by Mangku and Senapathi (2018), that the implementation of the physical examination assessment includes, examination or measurement of patient status and general examination. It is explained in the general examination which includes examination of the status: psychological (anxious, afraid or in pain), nerves (brain, spinal cord, and peripheral nerves), respiration, hemodynamics, blood disease, gastrointestinal, hepato-biliary, urogenital and urinary tract, metabolic and endocrine, skeletal muscle and integument. Peripheral nerve examination must be assessed during the nerve examination and BMI examination during the patient status examination which includes consciousness, respiratory rate, blood pressure (BP), pulse (N), body temperature (oC), weight and height to assess nutritional status/BMI and estimate the dose of drugs, fluid therapy needed and the amount of urine during and after surgery.

3.3 Implementation of Documentation of Anamnesis or Assessment Results in Patients with General Anesthesia in the Surgical Installation Room of Pademangan Regional Hospital.

In carrying out the assessment of anesthesia technicians, it is also mandatory to document the results of its implementation with a documentation sheet. From the results of observations and the results of the documentation sheet obtained that in writing the documentation of the results of the examination, the two sources did not write it simultaneously directly during the assessment in the preparation room, but both sources wrote the results of the pre-anesthesia documentation during intra-operative and post-operative periods. This happened because of the short time available in the preparation room to review and write the documentation. Sometimes the sources also conducted a pre-visit to find out the status of the patient's assessment the day before the patient underwent surgery, this applies to patients who underwent elective surgery. Sometimes the results the day before surgery with the assessment in the preparation room shortly before surgery can be different according to the patient's physical condition. Some anesthesia technicians feel burdened by the time spent in the documentation process. Documentation of Arrangement is an important part. However, in reality in the field, the documentation of the anesthesia technician that is carried out is still manual and conventional, not accompanied by an adequate system / technological device. For example, in terms of documentation of nursing care, it is still manual, so that nurses have great potential for the process of errors in practice. With the advancement of information and communication technology, it is very possible for nurses to have a documentation system. This is not in line with the understanding of documentation itself, which is that documentation is a record that contains all the information needed to determine a diagnosis, make plans, implement, evaluate actions that are arranged systematically, validly and can be accounted for morally and legally. Documentation of written anesthesia management (paper-based documentation) in Indonesia is currently reported to be of low quality [7].

CONCLUSION

Based on the results of data processing and discussion in the research in this thesis, it can be concluded that the two Anesthesia Team participants in the implementation of pre-anesthetic assessments on patients with general anesthesia in the Surgical Installation Room of Pademangan Hospital can be seen from their implementation, in assessing patient anamnesis both directly and

with the patient's family, in reviewing physical examinations, supporting examinations and patient psychology in accordance with applicable standard operating procedures, except for the BMI examination section, peripheral nerve disorder examination, providing therapeutic greetings at the end of the action and also in documenting the action did not comply with the applicable standard operating procedures.

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