Background: The submission of informed consent aims to obtain evidence of consent that can document legal and ethical liability. Anesthesia procedures include pre-anesthesia, intra-anesthesia and post-anesthesia. Pre-anesthesia is a pre-anesthesia and sedation assessment, informed consent for anesthesia and sedation, giving premedication drugs if necessary, and instructing fasting before surgery. Purpose: This study was to determine the level of patient knowledge about anesthesia procedures through informed consent at the Central Surgical Installation of Jatiwinangun Purwokerto Special Surgical Hospital. Methods: This study used a quantitative descriptive design with a cross sectional approach. The sampling technique used consecutive sampling of 108 respondents. The measuring instrument used was a questionnaire sheet. Analysis test using univariate test. Results: The analysis showed that the most dominant age of respondents was in the range of 36-45 years (23.4%), with the last education having a high school background (35%) and male (59.3%). Conclusion: An overview of the patient’s knowledge level about anesthesia procedures through informed consent in the central surgical installation of Jatiwinangun Purwokerto Special Surgical Hospital, the majority have a sufficient level of knowledge.

Introduction: The increasing number of people in the world who need invasive measures is a medical concern, especially medical personnel who are directly involved in surgical procedures. According to the World Health Organization (WHO), the number of patients undergoing surgical procedures from year to year has increased significantly, in 2015 there were 140 million people who performed surgical procedures in all hospitals in the world, while in 2016 it increased to 148 million people who underwent surgical procedures (1). Data from the Ministry of Health of the Republic of Indonesia, recorded surgical procedures ranked eleventh out of 50 diseases with a percentage of 12.8% in hospitals throughout Indonesia (2).

Based on research results Gde et al., (2022) in 2017, only 673 patients underwent regional anesthesia, while in 2019 the number of regional anesthesia treatments performed increased to 1829
According to research (Marco, 2010) showed that 64% of their patients had little or no recollection of the information presented to them on the informed consent document. Furthermore, 21% of patients who signed the informed consent document reported that they did not read it (4).

Anesthesia procedures include pre-anesthesia, intra-anesthesia and post-anesthesia. Pre-anesthesia is pre-anesthesia and sedation assessment, informed consent, anesthesia and sedation administration of premedication drugs if necessary, and instructing fasting before surgery. Pre-anesthesia assessment is an assessment of the patient's condition carried out before anesthesia where the results of the assessment will be the basis for determining a safe and appropriate anesthesia planning process. Intra anesthesia is a pre-induction assessment, induction and monitoring of anesthesia durante. Post anesthesia is monitoring in the recovery room, aldrete score and criteria for transferring patients after anesthesia and sedation (5).

Anesthesia is the disappearance of pain, and according to the type of use is divided into general anesthesia accompanied by loss of consciousness, while regional anesthesia and local anesthesia disappear pain in one part of the body only without loss of consciousness (6). Anesthesia is an action to relieve pain during surgery and various other procedures that cause pain, in this case fear needs to be eliminated to create optimal conditions for the implementation of surgery (7). Anesthesia is a management to numb the feelings, both pain, fear, and discomfort (8).

According to Boulevard et al (2008) based on the type of surgery, anesthesia is divided into three types: general anesthesia, regional anesthesia and local anesthesia. Of the three types of anesthesia, general anesthesia is the administration of drugs before surgery that can cause loss of consciousness, during medical action the patient cannot be awakened even by very painful stimulation. Meanwhile, regional anesthesia is a method that is more analgesic 9. Regional anesthesia only relieves pain but the patient remains conscious. Therefore, this technique does not fulfill the triad of anesthesia because it only eliminates the perception of pain (10).

Informed consent is required in various cases such as surgery even when not in the hospital, radiation or chemotherapy, vaccines, some blood tests such as HIV. Informed consent is not required in emergencies which if delayed jeopardize the patient's condition (11).

The submission of Informed Consent aims to obtain evidence of consent that can document legal and ethical responsibility. It is hoped that patients can understand all medical interventions that will be carried out and can choose to agree or not without external coercion and can understand the risks if they refuse action. It also emphasizes that the patient's personal rights are legally guaranteed (12).

Method:
The research method used in this research is quantitative with a cross sectional approach. Quantitative descriptive research is a type of research carried out using a quantitative approach to obtain further information about a phenomenon and provide answers to a problem. The sampling technique in this study used consecutive sampling of 108 respondents. Consecutive sampling is a...
sampling technique where all subjects who come and meet the selection criteria are included in the study until the required number of subjects is met (13). This research has received approval from the research ethics review board of Harapan Bangsa University with approval number No. B.LPPM-UHB/2044/07/2023 on 08 July 2023. This research instrument uses a questionnaire.

Study Design

This analysis uses primary data from the results of questionnaires conducted on the respondents studied, namely patients who underwent surgery with all types of anesthesia, both general, regional and local anesthesia. With the inclusion criteria, all patients whose operations were carried out under general, spinal and local anesthesia with elective surgery were aged over 12 years.

Data Collection and Outcome Measurement

In this research there are several stages of data collection, namely preparation, explanation, collection and processing. Data collection was carried out using a pre-surgical knowledge level questionnaire and processing included coding, editing, assessing, processing and cleaning.

This study focuses on measuring the level of patient knowledge about anesthesia procedures through informed consent.

Statistical analyses

All statistical analyzes in this study used SPSS statistics with Version 29.0; IBM. The data analysis method used in this research was analyzed using univariate analysis. The purpose of this analysis is to see the large proportion of variables studied which consist of demographic data (age, gender and education), data on the patient's level of knowledge regarding anesthesia procedures at the Jatiwinangun Special Surgical Hospital, Purwokerto.

According to Notoatmojo (2012) univariate analysis aims to explain or describe the characteristics of respondents based on the characteristics of each variable. To find out the characteristics of each research subject by counting distribution and percentage of each group (14).

Result

Table 1. Distribution of Patients’ Knowledge Level about Anesthesia Procedures through Informed Consent in the Central Surgical Installation of Jatiwinangun Specialized Surgical Hospital

<table>
<thead>
<tr>
<th>Patient Knowledge Level</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>37</td>
<td>34.3%</td>
</tr>
<tr>
<td>Simply</td>
<td>57</td>
<td>52.8%</td>
</tr>
<tr>
<td>Less</td>
<td>14</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>108</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on table 1, an overview of the patient's knowledge level about anesthesia procedures through informed consent in the central surgical installation of Jatiwinangun Purwokerto Special Surgical Hospital has a level of knowledge in the good category, as many as 37 people (34%), as many as 57 people (52.8%) have a level of knowledge in the moderate category, and as many as 14 people (13%) have a level of knowledge in the poor category.

Table 2. Cross Tabulation between Age and Knowledge Level.
Table 2 shows that the highest age range was in the age range of 36-45 years as many as 25 people (23.1%) who had a level of knowledge in the good category as many as 14 people, sufficient knowledge category as many as 10 people and only 1 person who was in the category of poor knowledge level.

Table 3. Cross Tabulation between Gender and Knowledge Level

<table>
<thead>
<tr>
<th>Gender</th>
<th>Good</th>
<th>Simply</th>
<th>Less</th>
<th>f</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>21</td>
<td>32</td>
<td>11</td>
<td>64</td>
<td>59.3%</td>
</tr>
<tr>
<td>Female</td>
<td>16</td>
<td>25</td>
<td>3</td>
<td>44</td>
<td>40.7%</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>57</td>
<td>14</td>
<td>108</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 3 shows that male respondents constitute the largest population, namely 64 respondents (59.3%). A total of 21 people had good knowledge, 32 people had moderate knowledge, and 11 people had poor knowledge.

Table 4. Frequency distribution of work stress based on respondents’ working hours

<table>
<thead>
<tr>
<th>Education</th>
<th>Good</th>
<th>Simply</th>
<th>Less</th>
<th>f</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary School</td>
<td>0</td>
<td>6</td>
<td>7</td>
<td>13</td>
<td>12%</td>
</tr>
<tr>
<td>Junior High School</td>
<td>7</td>
<td>18</td>
<td>2</td>
<td>27</td>
<td>25%</td>
</tr>
<tr>
<td>Senior High School</td>
<td>16</td>
<td>19</td>
<td>3</td>
<td>38</td>
<td>35.2%</td>
</tr>
<tr>
<td>Diploma</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>9</td>
<td>8.3%</td>
</tr>
<tr>
<td>Bachelor</td>
<td>11</td>
<td>9</td>
<td>1</td>
<td>21</td>
<td>19.4%</td>
</tr>
<tr>
<td>Total</td>
<td>37</td>
<td>57</td>
<td>14</td>
<td>108</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 4 shows that the most recent education level of most respondents had a high school education background, 38 people with a level of knowledge in the good category, 16 people, 19 people in the medium category, and 3 people in the knowledge level. knowledge in the poor category.

Discussion

An overview of the patient's knowledge level about anesthesia procedures through informed consent in the central surgical installation of Jatiwinangun Purwokerto Special Surgical Hospital.

Based on the results of research conducted on patients undergoing surgery in the central surgical installation of Jatiwinangun Purwokerto Special Surgical Hospital, it was found that the majority of respondents had sufficient knowledge related to ten types of
information that had been conveyed by anesthesiologists in the pre-surgical phase using an informed consent sheet. It can be interpreted that most patients gave correct statements on the questionnaire.

Based on this study, researchers assume that not all patients have good or sufficient knowledge about information from diagnosis, surgery, anesthesia, procedures, risks and alternatives, complications, prognosis, postoperative analgesics, complications of analgesic administration and other questions because there are still 14 (13%) respondents among 108 respondents who have poor knowledge in understanding the questions on the questionnaire.

According to Notoadmodjo (2010) knowledge is the result of knowing, and occurs after people perceive certain objects. Sensing occurs through the five human senses, namely the senses of sight, hearing, smell, taste and touch. Most human knowledge is obtained through the eyes and ears, namely the process of seeing and hearing. In addition, it can also be obtained from experience and the learning process in formal and informal education. Knowledge is also an important domain in shaping a person's actions (overt behavior) (15).

Knowledge is also a person's ability about something, the ability to know is the ability to recognize and recall an object, idea, procedure, principle, and theory that has been found by experience without manipulating it. From experience and research it is proven that behavior based on knowledge will last longer in a person's life than behavior that is not based on knowledge (15). Based on the definitions above, it can be concluded that knowledge is the result of the process of remembering and recognizing objects that have been studied through the five senses in a particular field properly (16).

**Patient knowledge level based on age in the Central Surgical Installation of Jatiwinangun Purwokerto Specialized Surgical Hospital**

Based on the results that have been studied, it shows that the majority of respondents are in the age range of 36-45 years. According to Budiman (2013), that the increasing age will also develop the power of capture and mindset so that the knowledge gained will also improve and increase. Researchers assume that the age range of 36-45 years has a fairly good level of knowledge in receiving and understanding what has been conveyed (17).

Based on the results at the age level of 12-16 years, the majority are in the good knowledge category. According to Piagiet in Jahja (2012) adolescent thinking tends to be abstract, logical, and idealistic. Adolescents are more able to test their own thoughts, the thoughts of others, and what others think about them, and tend to find out more about social life and interpret (18).

Based on the results at the age level>65 years, the results showed only 1 person in the category of good knowledge level, 7 respondents had good knowledge and 7 people in the moderate category. According to research Pragholapati et al (2021) which shows an overview of cognitive function in the elderly at the Muhammadiyah Nursing Home and the Tulus Kasih Elderly Cottage Foundation, almost half of the elderly experience Alzheimer's dementia or severe cognitive impairment (19).
Deterioration of cognitive function can be in the form of forgetfulness (Forgetfulness), which is the mildest form of cognitive impairment estimated to be complained of by 39% of the elderly aged 50-59 years, increasing to 85% at the age of more than 80 years. In this phase a person can still function normally, namely starting to find it difficult to recall information that has been learned, not infrequently found by middle-aged people. If the population aged over 60 years in Indonesia amounts to 7% of the population, then the complaint of forgetfulness is suffered by about 3% of the population in Indonesia. This forgetfulness can progress to Mild Cognitive Impairment (MCI) to dementia as the most severe clinical form (20).

**Level of patient knowledge based on gender in the Central Surgical Installation of Jatiwinangun Purwokerto Specialized Surgical Hospital**

The majority of respondents were male rather than female. This research is in line with research by Amalia (2020) about the description of the level of knowledge of pre-anesthesia patients on anesthesia procedures which shows that the majority of respondents are male (21). In contrast to research from Sarwendah (2017) which showed that the majority of respondents were female (22).

According to Moekijat (1998), gender factors have a direct or indirect relationship with a person's level of knowledge about something. It is known that men tend to have better knowledge than women. This is due to various reasons, such as men having wider activities and knowledge, being able to socialize better and the opportunity to get information is greater due to the activities that accompany them (23).

Research conducted by Zaidi (2010) entitled, "Gender differences in human brain: A review" concluded that there is no difference between men and women in terms of intelligence, but both tend to operate in different ways. Men and women use different parts of the brain, namely the right side of the brain. The right side of the brain functions in terms of remembering, feeling emotions, recognizing faces, solving problems and making decisions (24).

The researcher assumed that respondents who were male at the time of the study, underwent more surgery with urological cases than female respondents, while cases in the female gender in this study were mostly in the case of Mamae Tumor. This is supported by the research of Silalahi (2020) which shows that the majority of urinary tract stones are suffered by male respondents (25). Other research from Arsi et al (2022) which shows the results of data interpretation, it is found that male respondents with BPH incidence are more when compared to BPH incidence respondents who are female (26).

**Patient knowledge level based on education in the Central Surgical Installation of Jatiwinangun Purwokerto Specialized Surgical Hospital**

Based on the results of this study, it was found that the majority had a high school education background. This research is in line with the research of Sarwendah (2017) which states that the majority of the last education has a background in high school education (22). The results of this study are also in line with
research Seniwati (2018) that most of the patients' education is high school and followed by college (27). The results of this study are also in line with research conducted by Hasanah Nur (2017) that most of the respondents' education is in the High School category (28).

Based on the results of those with higher education backgrounds such as diplomas and undergraduate degrees, there are still 2 (2%) respondents who are in poor knowledge. According to Notoatmodjo (2014) knowledge is influenced by several factors, one of which is the level of education (29). The higher a person's level of education, the better his knowledge and vice versa (30).

Researchers assume that this result occurs due to the factor of delivering information with words that are not understood and the time for delivering information is too short so that it can affect the results in the study. This is supported by research conducted by Livana et al (2020) which shows that there is a relationship between education, delivery time, patient psychological factors, and delivery language with patient understanding of the explanation of Informed Consent for surgery in patients at Drs. H. Abu Hanifah Regional General Hospital in 2023 (31).

Conclusions

The level of patient knowledge about anesthesia procedures through informed consent is in the category of sufficient knowledge level. The level of patient knowledge based on age is in the age range of 36-45 years. The level of patient knowledge based on gender is mostly male. The level of patient knowledge based on the educational background of the majority of respondents is at the high school level.

References

Modern Surgical Practice. Canada: ELSEVIER.
surgery at bekasi city hospital, 623-630.


