

Conference Paper

Overview of AEFI on Survivors and Non-survivors After the Administration of the Covid-19 Vaccine

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Follow-up events post-Covid-19 Vaccine (KIPI) is one of a person's considerations in deciding whether or not to participate in the Covid-19 vaccine. Adverse events after the Covid-19 vaccine vary widely, several studies have been carried out to look at the characteristics of AEFI after the Covid-19 vaccine. Several things still require study, one of which is the AEFI category for survivors and non-survivors. This study aims to describe the characteristics of post-vaccine adverse events, as well as the AEFI categories for survivors and non-survivors after the Covid-19 vaccine is given. The research design is descriptive with a cross-sectional research method. The research subjects were 128 people in the West Banten Region who had received the Covid-19 vaccine. The data were obtained by using Google-form which had been shared through WhatsApp groups. This research was conducted in December 2021. The data collection technique used in this study was random sampling. The results showed 8 respondents who complained of post-vaccine fever (6.3), 14 complained of dizziness after the vaccine (10.9), 31 complained of muscle pain (24.2), 2 complained of shortness of breath after getting the vaccine (1.2), 2 complained of nausea after getting the vaccine (1.6), and 4 complained of itching all over the body (3,4). The majority of research respondents experienced mild AEFI in both the survivors and the non-survivors. Information related to the lightness of AEFI after the covid vaccine is a mandatory consumption material that must be given to the community; besides that, it can also be used as a basis for the government to set policies.

Keywords: AEFI, survivors and non-survivors, COVID-19 vaccine

1. Introduction

As of July 2022, there were 6,123,753 confirmed cases of COVID-19, 24,490 active cases of Covid, 5,942,436 recovered cases and 156,827 deaths (Banten Health Office, 2021). In handling the Corona virus, the WHO and the Indonesian government have designed it for everyone from the age above 18 years to the elderly, even pregnant

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women are recommended to vaccinate against COVID-19. Vaccination is one way to prevent infectious diseases that are not only given to babies, but also to adults. The way it works is by giving certain bacterial or viral antigens that have been weakened or turned off so that the immune system can recognize, destroy, and remember foreign objects so that the body can easily recognize and prevent foreign objects from entering and attacking the body[1]

The Covid-19 vaccination aims to reduce the transmission of Covid-19 transmission, reduce morbidity and mortality due to Covid-19, achieve group immunity in the community (herd immunity) and protect the community from Covid-19 in order to remain socially and economically productive. Herd immunity can only be formed if vaccination coverage is high and evenly distributed throughout the region. Prevention efforts through the provision of vaccination programs if assessed from an economic point of view, will be much more cost-effective, when compared to treatment efforts [2,3]

Vaccination efforts have been carried out in various countries in the world, including Indonesia to develop an ideal vaccine for the prevention of SARS-CoV-2 infection with various platforms, namely inactivation vaccines, attenuated virus vaccines, viral vector vaccines, nucleic acid vaccines, vaccines such as -like vaccine) and protein subunit vaccine [4]

Vaccine coverage as of November 29, 2021, nationally for the first dose reached 66.89%, while for the second dose it reached 45.83% (Ministry of Health, 2021). Covid-19 countermeasures are still ongoing, not only with the implementation of the protocol. Health but also intervention with vaccination as part of efforts to prevent and control Covid-19.

In general, vaccines provide immunity without having to get sick. The immune system can build up without any reaction, but there are also some common AEFI symptoms, which are mild to moderate, and will go away on their own in a matter of days. Some forms of mild to moderate AEFIs that may be experienced post-vaccination are: Aches around the injection area, low-grade fever, fatigue, headache, muscle or joint aches, chills, diarrhea [5]

Vaccine side effects are divided into 2, namely local effects and systemic effects, local side effects are usually in the form of swollen eyes, itching, rashes all over the body. Systemic side effects are fever, headache, muscle aches, lethargy, drowsiness, diarrhea, vomiting and general numbness.[6]

Still in Safira [6] divides AEFI into 3 scales, namely mild (drowsy), moderate (itching, fever, headache, muscle aches, lethargy, cough/runny nose, diarrhea, vomiting, numbness and severe (swollen eyes, rashes all over the body). The government's anticipation in minimizing the effects of this vaccine has been announced, for residents who experience AEFI there are several recommendations that have been made as guidelines for the government, including staying calm if there is a reaction such as pain, swelling or redness at the injection site, compresses with cold water at that location. If there is a fever, compress or take a warm bath. Then drink plenty of water and rest. You can also report the incidence of AEFI experienced to the Ministry of Health via <https://keamananvaksin.kemkes.go.id/index.php/public/p> report. If there are serious side effects, the patient will receive medical treatment and all costs will be borne by the government [5].

Many studies that discuss AEFIs have been found, but no research has been found that discusses the effects of AEFIs that are more specific for survivors and non-affectants. So this is the novelty of this research. This is needed as an effort to identify efforts and as an effort to anticipate AEFI both for survivors and non-residents. The purpose of this study was to describe the characteristics and categories of AEFIs and to find out the survivors and non-survivors who received the COVID-19 vaccine.

2. Methode and Equipment

This research is a descriptive research with cross-sectional method. The research subjects were 128 people who live in the West Banten Region. This research was carried out virtually through the google-form application, the research was carried out in December 2021. The data collection technique used in this study was random sampling

This research instrument uses a questionnaire consisting of 5 questions about the data on the characteristics of research respondents, 11 questions related to the characteristics of AEFI after the covid 19 vaccine. The questionnaire used is a modification of the AEFIs symptom questionnaire adopted from the AEFIs covid 19. The results of the validity test obtained a value of 0.558, this value is > from the R table, so that the overall questionnaire is declared reliable. Questionnaires are distributed through WhatsApp groups assisted by various parties. Questionnaires were distributed starting in early December 2021 and closed at the end of February 2022. Research respondents

were those who filled out the questionnaire during that time. The collected data is then analyzed with due regard to ethics, anonymous and confidentiality.

3. Results

TABLE 1: Frequency Distribution of Research Respondents Characteristics n : 128.

Characteristic	Frequency	Percentage
Age		
Teenager	30	23,4
Early adulthood	23	18,0
Late adulthood	43	33,6
Early elderly	27	21,1
Late elderly	5	3,9
Gender		
Man	35	27,3
Woman	93	72,7
Covid survivor		
Yes	83	64,8
No	45	35,2

It is explained in table 1 that the age frequency distribution of the majority of respondents is late adulthood as many as 43 respondents (33.6.9%), the majority of respondents based on gender are women as many as 93 respondents (72.75%), the majority of research respondents are Covid-19 survivors (64.8 %).

TABLE 2: Frequency Distribution of Survivor and Non-Survivor.

Category	AEFI						Total Respondents	Total Percentage
	Mild		Moderate		Severe			
	Total	Percentage	Total	Percentage	Total	Percentage		
Non-Survivor	42	93,3%	2	4,4%	1	2,2%	45	100%
Survivor	77	92,7%	3	3,6%	3	3,6%	83	100%
Total	119		5		4		128	

In the third table describing that respondent AEFI categories of non survivor 42 respondents (93,3%) have mild AEFI after vaccinated COVID-19, 2 respondents (4,4%) have moderate AEFI, and 1 respondent (2,2%) have severe AEFI. 77 respondents (87,5%)

of survivor research respondent have mild AEFI, and for respondents moderate AEFI and severe AEFI have 3 respondents with both same percentage (0,3%).

4. Discussion

Banten is a province with high level COVID case. Government of Banten Province already do any effort tu prevent this case, one of them is Banten Aware COVID Program by Banten Provincial Health Office and also application for the implementation of the covid 19 vaccination. Some cases proved that citizens still afraid of AEFI. Giving information about AEFI analysis and anticipations all around is one of effort to increase citizens willnes for COVID-19 vaccination.

The result of this research according to tables above explain majorly respondents age is late adulthood (33,6%) which is same as Safira, Ranginangin, and Saputri's research [6] with the major respondents is late adulthood. It is about the same with Romlah's research [7] about AEFI and COVID vaccination because the result is late adulthood. Late adulthood is productive age also begin of turning down Titer Neutralizing Antibody. Titer Neutralizing Antibody will decrease along with the increase of age. The most optimalize of Titer Neutralizing Antibody is in age between 18-39 (Marwan, 2021).The high incidence of Covid in late adulthood also shows high mobility both in the world of work and in one's social communication at this age. High activity results in high exposure due to the large number of interactions carried out

Based on the table above, research show the gender of the majority of the research respondents is female, as many as 93 respondents (72.75%). The conclusion is that more women come to administer the vaccine than men. This is in line with research conducted by Romlah and Damayanti[7] which stated that the majority of research respondents on the COVID-19 vaccine showed that women had more concern for health than men. The opinion of this researcher is also in line with a survey conducted by insurance companies New York-based Oscar Health. Oscar Health, which opens a clinic in Brooklyn, analyzed 45,000 of its customers in New York over the past year. From these data it can be seen that the ratio of men and women is more male, therefore the frequency of female respondents in this study where people who get vaccinated can be said because women pay more attention to health[7]

Most of the research respondents were COVID-19 patients, namely 83 (64.8%). The spread of covid is so large that it affects the number of respondents included in this

study. In Yari et al[8] stated that Banten Province is a province in Indonesia which ranks 9th for the highest number of cases of Covid-19 incidence with the number of confirmed cases until January 2021 as many as 26,204 people, a total recovery of 15,778 people and the number of deaths as many as 547 people. This shows that the incidence of covid in the Banten area is quite high, but it is balanced by the awareness of the people who experience covid to implement the vaccine

In table 3 it is explained that the category of AEFI with non-survivors can be explained that non-survivor research respondents who experienced mild AEFI symptoms after the covid-19 vaccine were 42 (93.3%), experienced moderate AEFI symptoms 2 (4.4%), who experienced Severe AEFIs were 1 respondent (2.2%). Respondents in the study of survivors who experienced mild AEFIs were 77 respondents (87.5%), who experienced moderate AEFIs of 3 (0.3%) and those who experienced severe AEFIs were 3 (0.3%). Judging from the percentage of AEFI incidence, both survivors and non survivors, the majority of respondents experienced mild AEFIs. This study is different from the research conducted by Romlah and Darmayanti [7] which stated that of 491 respondents, 405 respondents (82.5%) did not experience AEFIs, while 84 respondents (17.1%) experienced mild AEFIs. Vaccines aim to provide immunity to the body without having to get sick, so this immunity will build without a reaction, but there are common AEFIs that range from mild to moderate and will disappear in a matter of days, some of these AEFIs are soreness at the injection site, fever, fatigue or malaise , headache, muscle or joint aches, chills and diarrhea (UNICEF, 2021).

5. Conclusion

The majorly respondents age is late adulthood, female and the most respondent are survivors. The average AEFI in survivors and non-survivors experienced mild AEFI symptoms. So it can be concluded that AEFI, whether there are survivors or non-survivors, will not cause anything dangerous, so the covid vaccine is not something to be afraid of.

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7. Conflict of Interest

There is no conflict of interest in this study

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