

Long Trip High Risk of RT PCR Positive for International Traveler

Cicilia Widyaningsih*, Iksan Akbar and Anna Sunita

Program Studi Kesehatan Masyarakat, Fakultas Pascasarjana, Universitas Respati, Indonesia

*Corresponding Author: Cicilia Widyaningsih, Program Studi Kesehatan Masyarakat, Fakultas Pascasarjana, Universitas Respati, Indonesia.

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Abstract

Data from the World Tourism Organization and the World Bank in 2019, international travel agents were more than 1.5 billion tourists, in Indonesia 1.3 million people. This number was very large and was one of the risk factors for the spread of disease between countries and can be a risk for cases of importing Covid19 from abroad. The purpose of this research was to predict COVID-19 cases among international travelers according to individual characteristics, vital signs and environmental factors at Wisma Quarantine Pademangan in 2021. Case Control study, the random sampling was 233 cases Covid19, 233 controls, descriptive analysis, chi square and multiple logistic regression. Results 18-39 years old 63.3%, female 50.4%, working 63.3%, Indonesian citizen 95.1%, high risk country 54.9%, long journey 37.8%, close contact 3.6%, comorbid 9.9%, high blood pressure 18.2%, high temperature 6%, high pulse 7.3%, abnormal respiration 5.8%, abnormal saturation 6.4%. Factors were significant: the length of the trip p 0.000, OR 7.233; temperature p 0.003, OR 5.871; work p 0.035, OR 5.405; close contact p 0.037, OR 4.495, nationality p 0.053, OR 4.277; oxygen saturation p 0.041, OR 3.678; breath p 0.017, OR 3.389; Country of origin 0.000, OR 3.190; comorbid p 0.012, OR 2.818; gender p 0.000, OR 2.606; age p 0.000, OR 2.405. Conclusion 11 Covid-19 factors contributed 44.6%, the most important factor was the length of the trip.

Keywords: COVID-19; Length of International Travel; Tourism

Introduction

One of the things that affect the speed of the spread of COVID-19 around the world is the mobility of international travellers. According to International Health Regulations (2005) and International Travel and Health (2012), an international traveler is someone who travels between countries. According to data from the World Tourism Organization and the World Bank in 2019, international travel agents reached more than 1.5 billion tourists [1-3]. Meanwhile in Indonesia, international travelers who come from abroad as foreign tourists according to the Central Statistics Agency (BPS) in 2019 reached 1.3 million people per month [4]. This number is very large and is one of the risk factors for the spread of disease between countries and can be a risk for imported cases from abroad.

Based on the report of the National Task Force for Handling COVID-19 (Covid-19 Task Force) in early March 2021, that the number of international travelers undergoing quarantine in Indonesia

was 155,000 and positive confirmed cases of COVID-19 through PCR examination were 3,822 people [5]. The most positive cases came from Saudi Arabia with 1542 people, followed by the United Arab Emirates 272, Qatar 205, Taiwan 184, Singapore 123, Turkey 122, Malaysia 93, Japan 84, Hong Kong 80 and others [6,7]. According to the spokesperson for the COVID-19 Task Force, this data is a large amount and can pose a high risk of spreading in Indonesia if there are no controlled and centralized quarantine and isolation efforts for these travelers [8].

During the COVID-19 pandemic, the Government carried out surveillance and restrictions on international travellers [9]. Travelers, whether Indonesian citizens (WNI) or foreign nationals (WNA) who come from various countries, to be able to enter Indonesian territory must be free of signs and symptoms of COVID-19 as evidenced by the existence of a certificate of results from the Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) examination [5]. RT-PCR negative for COVID-19 [10]. After showing this evidence,

international travelers are required to undergo a quarantine period in quarantine facilities provided by the Government [11]. During the quarantine process, all international travelers are also required to take a swab and have their specimen checked for confirmation using the RT-PCR tool in the laboratory. If the results of the RT-PCR examination are negative for COVID-19, then the quarantine period ends and you can continue your journey. If confirmed positive for COVID-19, isolation and handling of confirmed cases will be carried out according to the guidelines. The purpose of this study is to prove that Long Trip causes positive RT PCR for COVID-19 on international travellers at Wisma Quarantine Pademangan in 2021.

Method

Case control design, descriptive analysis, ChiSquare analysis and multiple logistic regression. The population of 3944 people was taken by random sampling, 233 positive cases of PCR Covid19 and 233 negative cases of Covid19 were taken. The study was conducted at Wisma Quarantine Pademangan, Jakarta in May-June 2021. The sample was cases of COVID-19 among international travelers who were quarantined for the period May-June 2021, totaling 3944 people.

Control inclusion criteria are as follows. Recorded in the medical record or health quarantine information system, the first and second COVID-19 are not confirmed [12]. While the control exclusion criteria were complete data with the variables needed for testing (age, gender, occupation, nationality, comorbidities, body temperature, pulse rate, respiratory rate, blood pressure, oxygen saturation, history of close contact, country of origin, length of travel) [13].

Result

NO	Factors	Frequency	Percentage
1	Cases Positive RT PCR	233	50%
	Control Negative RT PCR	233	50%
2	Country Arrival		
	High Risk	256	54.9%
	Low Risk	210	45.1%
3	Leng of Trip		
	≥ 2 hours	176	37.8%
	<2 hours	290	62.2%
4	Close Contact		
	Contact	17	3.6 %
	Not contact	449	96.4%
5	Citizen		
	Foreigners	23	4.9%
	Indonesian	443	95.1%
6	Gender		
	Male	231	49.6%
	Female	235	50.4%

7	Age		
	>39 years	169	36.3%
	18- 39 years	297	63.7%
8	Work		
	Working	448	96.14%
	Not working	18	3.86%
9	Blood Pressurre		
	Hypertension	85	18.2%
	Normal	381	81.8%
10	Pulse		
	High	34	7.3%
	Normal	432	92.7%
11	Breath		
	Not Normal	27	5.8%
	Normal	439	94.2%
12	Temperature		
	Fever	28	6.0%
	Normal	438	94.0%
13	Oxigen Saturation		
	Not normal	30	6.4%
	Normal	436	93.6%
14	Symptoms		
	Yes	46	9.9%
	No	420	90.1%

Table 1: Distribution and frequency of covid-19 positive RT PCR swab and characteristic factors, quarantine environment at Wisma Pademangan May-June 2021.

Majority RT PCR positive at age 18-39 years old 63.3%, female 50.4%, working 96.14%, Indonesian citizen 95.1%, high risk country 54.9%, long journey 37.8%, close contact 3.6%, comorbid 9.9%, high blood pressure 18.2%, high temperature 6%, high pulse 7.3%, abnormal respiration 5.8%, abnormal saturation 6.4%.

Factors that were significant of RT. PCR. Positive as follows: Factors were significant: Job p 0.001, OR 8.516, 95%CI 1.935-37.471; citizen p 0.000, OR 7.199, 95% CI 2.109-24.572; leng of trip p 0.000, OR 5.614, 95% CI 3.696-8.527; oxygen saturation p 0.000, OR 5.481, 95%CI 2.060-14.580; temperature p 0.000,OR 4.994,95%CI 1.865-13.375; close contact p 0.007, OR 4.901, 95%CI 1.389-17.289; country arrival p 0.000, OR 3.128, 95%CI 2.138-4.576; Breath p 0.029, OR 2.497,95%CI 1.071-5.825; age p 0.000,OR 2.252, 955 CI 1.529-3.318; Symptoms p 0.030, OR 2.004, 95%CI 1.061-3.787; blood pressure p 0.023, OR 1.741, 95%CI 1.077-2.815. Only pulse was not significant p 0.154, OR 1.676, 95%CI 0.818-3.433. All factors were followed multivariate analysis.

No	Factors	Positive RT.PCR	Negative RT.PCR	p Value	Odd Ratio	95% CI Lower	Upper
1	Country Arrival High risk Low Risk	160 (68.7%) 73 (31.3%)	96 (41.2%) 137 (50.8%)	0.000	3.128	2.138	4.576
2	Leng of Trip ≥ 2 jam <2jam	132 (56.7%) 101 (43.3%)	44 (18.9%) 189 (81.1%)	0.000	5.614	3.696	8.527
3	Close Contact Contact Not Contact	14 (6.0%) 219 (94%)	3 (1.3%) 230 (98.7%)	0.007	4.901	1.389	17.289
4	Citizen Foreigner Indonesian	20 (8.6%) 213 (91.4%)	3 (1.3%) 230 (98.7%)	0.000	7.199	2.109	24.572
5	Gender Male Female	133 (57.1%) 100 (42.9%)	98 (42.1%) 135 (57.9%)	0.001	1.832	1.269	2.645
6	Age >39 Years 18- 39 Years	170 (73.0%) 63 (27.0%)	127 (54.5%) 106 (45.5%)	0.000	2.252	1.529	3.318
7	Occupation Working Non working	231 (99.1%) 2 (0.9%)	217 (93.1%) 16 (6.9%)	0.001	8.516	1.935	37.471
8	Blood Pressure High Normal	52 (22.3%) 181 (77.7%)	33 (14.2%) 200 (85.8%)	0.023	1.741	1.077	2.815
9	Pulse High Normal	21 (9.0%) 212 (91.0%)	13 (5.6%) 220 (94.4%)	0.154	1.676	0.818	3.433
10	Breathing Not normal Normal	19 (8.2%) 214 (91.8%)	8 (3.4%) 225 (96.6%)	0.029	2.497	1.071	5.825
11	Temperature Fever Normal	23 (9.9%) 210 (90.1%)	5 (2.1%) 228 (97.9%)	0.000	4.994	1.865	13.375
12	Saturation Not normal Normal	25 (10.7%) 208 (89.3%)	5 (2.1%) 228 (97.9%)	0.000	5.481	2.060	14.580
13	Symptom Yes No	30 (12.9%) 203 (87.1%)	16 (6.9%) 217 (93.1%)	0.030	2.004	1.061	3.787

Table 2: Factors influence with positive or negative swab RT PCR covid19 in pademangan quarantine place of traveller.

No.	Factors	B	P value	OR	95% C.I. for OR	
					Lower	Upper
1	Negara Kedatangan	1.160	.000	3.190	2.003	5.080
2	Leng of trip	1.979	.000	7.233	4.365	11.984
3	Close contact	1.503	.037	4.495	1.095	18.449
4	Citizen	1.453	.053	4.277	.979	18.693
5	Gender	.958	.000	2.606	1.615	4.204
6	Age	.878	.000	2.405	1.481	3.905
7	Job	1.687	.035	5.405	1.122	26.037
8	Breath	1.220	.017	3.389	1.249	9.196
9	Temperature	1.770	.003	5.871	1.822	18.925
10	Oxigen saturation	1.302	.041	3.678	1.056	12.809
11	Symptoms	1.036	.012	2.818	1.250	336.354
-2 Log likelihood		Cox and Snell R Square	Nagelkerke R Square			
456.459 ^a		.334	.446			

Table 3: Result of Multivariate Analysis Influence Factors to RT.PCR. Positive.

The final result of multivariate analysis factors that influence to RT PCR Positive such as leng of trip p 0.000, OR 7. 233, 95%CI 4.365-11.984; temperature p 0.003, OR 5.871,95%CI 1.822-18.925; job p 0.035,OR1.122-26.037; close contact p 0.037, OR 4.495, 95%CI 1.095-18.449; citizen p 0.053, OR 4.277,95%CI 0.979-18.693; Oxi-gen saturation p 0.041, OR 3.678, 95%CI 1.056-12.809; breath p 0.017, OR 3.389, 95%CI 1.249-9.196; country arrival p 0.000, OR 3.190,95%CI 2.003-5.080; symptoms p 0.012, OR 2.818, 95%CI 1.250-6.354; gender p 0.000, OR 2.606, 95%CI1.615-4.204; age p 0.000, OR 2.405, 95%CI 1.481-3.905.

Discussion

Generalization of results

Based on the methodology used in the study, ranging from re-search design, population determination and sampling, data collec-tion and analysis has been carried out properly, the results obtained from this study meet the validity and reliability. Internal validity is met with the number of samples that are in accordance with the minimum sample required in a case-control study, so that it can be said to meet scientific statistical tests. In addition, the sampling was carried out purposively and followed the inclusion and exclusion criteria.

Probability sampling will be valid for minimal application to the original population, and for generalization to populations outside the study it can also be done if it has the same variable character-istics. Thus, this research can be generalized if it is in a population with conditions that have similar characteristics.

The risk factors

The environmental factors of travelers

Close contact history relationship to COVID-19 cases in inter-national travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that re-spondents have a history of close contact as many as 17 people (3.6%) and 449 people (96.4%). The results of the bivariate analy-sis showed that there were 14 respondents (6.0%) with a history of close contact and 219 respondents (94.0%) with no history of close contact who had positive swab results) with OR 4.901.95% CI 1.389-17.289 This means that the group of respondents Those who have a history of close contact are almost 5 times more likely to be exposed to COVID-19 compared to those who do not have a history of close contact. In multivariate analysis, there was an interaction that decreased slightly to OR 4.495, 95% CI 1.095-18.44. The ratio of positive close contact with no positive close contact with RT PCR is 0.64%/46.99% (73.42), meaning that even if there is no close contact, the risk of being on the plane for more than 2 hours is at risk of being infected with Covid19. This research is in line with WHO and CDC and the Ministry of Health (2020), someone who has a history of close contact with a COVID-19 case is very susceptible to infection [9,11]. All cases of COVID-19 had a history of contact with a previous positive case, whether known or not. In addition, this finding is also supported by the research of [14-16].

The relationship of country-of-origin risk to covid-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of risk originating countries are in the high-risk category as many as 256 people (54.9%) and high risk as many as 210 people (45.1%). The results of the bivariate analysis showed that 160 respondents (68.7%) came from high-risk countries and 73 respondents (31.3%) from low-risk countries who had positive swab results with an OR value of 3,128 (95% CI 2,138). -4.576) which means that the group of respondents who come from high-risk countries have a four times higher chance of being exposed to COVID-19 than those from low-risk countries. The results of multivariate interaction occurred that there was a slight increase to 3,190, 95% CI 2003-5,080. This study is in line with the [17], countries that have a high level of risk of transmission will increase the likelihood of someone being exposed to COVID-19. This is also supported by research conducted by [18], that someone who has a history of traveling to high-risk areas tends to be more exposed to COVID-19.

The Risk Relationship of Travel Length of More than 2 Hours to COVID-19 Cases in International Travelers. The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of the risk of long trips in the low risk category are 290 people (62.2%) and high risk are 176 people (37.8%). The results of the bivariate analysis showed that there were 132 respondents (56.7%) with a high risk of travel time and 101 respondents (43.3%) with a low risk of travel length who had positive swab results with an OR value of 5.614 (95% CI 3.696-8.527) which This means that the group of respondents with a high risk of traveling length has a 5-fold higher chance of being exposed to COVID-19 compared to those with a low risk of travel length. In the multivariate analysis, there was an interaction so that the OR for the length of the trip increased to 7,233, meaning that the risk of a trip of more than 2 hours had a seven-fold greater chance of being infected with the Covid-19 virus compared to those who traveled less than two hours. This study is in line with the results of a study conducted by [19], groups who make long trips, especially flights, tend to be more susceptible to COVID-19 cases compared to shorter trips. This is also supported by research by [20], that there is a tendency for contact to occur during the trip.

Relationship characteristics of travelers

Relationship of age to covid-19 cases in international travelers

Relationship of gender to COVID-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the sex of the respondents is balanced, namely 231 men (49.6%) and 235 women (50.4%). The results of the bivariate analysis showed that there were 133 respondents (57.1%) with male gender and 100

respondents (42.9%) with female gender having positive swab results. The results of statistical tests showed that there was a significant relationship between the sex of travellers and positive swab results (p-value 0.001), with a value of OR1.832 (95% CI 1.269-2.645) which means that the group of respondents with male gender has the opportunity to be exposed to COVID-19 is almost 2 times higher than female respondents. The multivariate results showed that the sex interaction ratio increased to 2.606.95% CI 1.615-4.200. This study is in line with the WHO and CDC and the Ministry of Health (2020), the male group tends to be more susceptible to COVID-19 cases compared to women. This is because the male group has a more active activity outside the place of residence. In addition, this finding is also supported by the research of [14-16,18].

Employment relationship to COVID-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of respondents' jobs are working as many as 448 people (96.14%) and not working as many as 18 people (3.86%). The results of the bivariate analysis showed that there were 231 respondents (99.1%) working and 2 respondents (0.9%) not working who had positive swab results. The results of the statistical test show that there is a significant relationship between the work of the traveler and the positive swab result, p-value 0.002, with an OR value of 8.516, 95% CI 1.935-37.471 which means that the group of working respondents has an eight-fold higher chance of being exposed to COVID-19 than with respondents who do not work. In multivariate analysis, there was an interaction of reduced risk to 5,405. This research is in line with [5,9,21], working groups tend to be more susceptible to COVID-19 cases than those who do not work. This is because the work group has more active activities outside the place of residence. In addition, this finding is also supported by the research of [14-16].

National relations against COVID-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of respondents are Asian ethnicity as many as 443 people (95.1%) and non-Asian ethnicities as many as 23 people (4.9%). The results of the bivariate analysis showed that 20 respondents (8.6%) were foreign nationals and 213 respondents (91.4%) were Indonesian citizens who had positive swab results. The statistical test results show that there is a significant relationship between the nationality of the traveler and the positive swab result, p-value 0.000, with an OR value of 7,199, 95% CI 2,109-24,572, which means that the Indonesian respondent group has a 7,199 times higher chance of being exposed to COVID-19 than with foreign respondents. Multivariate results showed an interaction to reduce

risk to 4.277, 95%CI 0.979-18.690, p value 0.053, This is in line with WHO and CDC (2020), nationality or citizenship is not directly related to susceptibility to exposure to COVID, but certain ethnicities vulnerable to COVID-19 which is also directly proportional to the level of risk of transmission where they live. In addition, research conducted by [15,16,18] that Asian ethnicities are more susceptible to exposure to COVID-19.

Comorbid relationship to COVID-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of respondents without comorbid as many as 420 people (90.1%) and with comorbid as many as 46 people (9.9%). The results of the bivariate analysis showed that there were 30 respondents (12.9%) with comorbidities and 203 respondents (87.1%) without comorbidities who had positive swab results. Statistical test results show that there is a significant relationship between comorbid travelers and positive swab results, p-value 0.030, with an OR value of 2,004, 95% CI 1,061-3,787 which means that the group of respondents with comorbidities has the opportunity to be exposed to COVID-19 by 2,004 times higher than with no comorbidities. Multivariate results showed an increased risk of interaction to 2,818, 95%CI 1,250-6,350 against Covid19. This study is in line with WHO and CDC and the Ministry of Health (2020), a person who has a comorbid disease is susceptible to exposure and has a high fatality rate caused by COVID-19. In addition, this finding is also supported by the research of [15,16], who found that severe cases of COVID-19 had comorbidities.

Relationship vital signs travelers

Relationship between body temperature and cases of COVID-19 in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of respondents' body temperatures are normal as many as 438 people (94.0%) and 28 people (6.0%). The results of the bivariate analysis showed that there were 23 respondents (9.9%) with abnormal body temperature and 210 respondents (90.1%) with normal body temperature who had positive swab results. The results of the statistical test show that there is a significant relationship between the nationality of the traveler and the positive swab result (p-value 0.000), with an OR value of 4,994, 95% CI 1,865-13,375, which means that the respondent group with an abnormal body temperature has the opportunity to be exposed to COVID-19 by as much as 4,994 times higher than normal temperature. The multivariate results showed an increase in the risk of a normal body's body against Covid19 being 5,871 times higher than normal temperature with 95% CI 1,822-18,920. This research is in line with the WHO and CDC and the Ministry of Health (2020), a

person with a body temperature of more than 38oC has a risk of being prone to COVID-19 in a pandemic condition, although there are other infectious diseases that can also cause an increase in body temperature. In addition, this finding is also supported by research by [15], that abnormal body temperature will affect a person's condition so that he is more vulnerable.

The relationship of pulse frequency to COVID-19 cases in international travel actors

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of respondents have normal pulse frequencies as many as 432 people (92.7%) and 34 people (7.3%). The results of the bivariate analysis showed that there were 21 respondents (9.0%) with an abnormal pulse rate and 212 respondents (91.0%) with a normal pulse rate who had positive swab results. The results of the statistical test showed that there was no significant relationship between the pulse frequency of the traveler and the positive swab result, p-value 0.154, with an OR value of 1.676.95% CI 0.818-3,433 which means that a group of respondents with an abnormal pulse frequency has the opportunity to be exposed to COVID-19 by as much as 1,676 times higher than the normal pulse rate. Multivariate test results were excluded because p value 0.189, OR 1.847, 95%CI 0.740-4.613. This study is different from the research of [15], that the abnormal pulse frequency group tends to be more susceptible to COVID-19 cases compared to the normal pulse frequency group. This is because many factors affect a person's pulse rate, one of which is high activity, increased body temperature, dehydration and so on.

The relationship of breath frequency to COVID-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of normal respondents' breath frequencies are 439 people (94.2%) and 27 people are not normal (5.8%).

The results of the bivariate analysis showed that there were 19 respondents (8.2%) with abnormal respiratory rates and 214 respondents (91.8%) with normal respiratory rates who had positive swab results. The results of the statistical test showed that there was a significant relationship between the traveler's breath frequency and the positive swab result (p-value 0.047), with an OR = 1.4 (95% CI 1.1-1.9) which means the group of respondents with respiratory frequency Abnormally, the chance of being exposed to COVID-19 is 1.4 times higher than the normal respiratory rate. This study is in line with research conducted by [15], that someone who has an abnormal respiratory rate will affect the condition of the body in cases of COVID-19 [22].

Relationship of blood pressure to COVID-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the majority of respondents' blood pressure was normal as many as 381 people (81.8%) and hypertension as many as 85 people (18.2%). The results of the bivariate analysis showed that there were 52 respondents (22.3%) with hypertension and 181 respondents (77.7%) with normal blood pressure who had positive swab results. Statistical test results show that there is a significant relationship between travellers' blood pressure and positive swab results, p-value 0.023, with an OR 1.741.95% CI 1.077-2.815, which means that the group of respondents with hypertension has a 1.741 times higher chance of being exposed to COVID-19 higher than normal blood pressure. The multivariate results were first excluded from the prediction because the p value > 0.250, namely p 0.345, OR 1.333, 95% CI 0.734-2.423. This study is in line with research conducted by [15], that abnormal blood pressure is a risk factor that will affect the outcome of the COVID-19 case, but after other factors that were not investigated the possibility of taking hypertension medication, airplane room temperature, or being able to rest so that the multivariate analysis was not significant.

The relationship of oxygen saturation to COVID-19 cases in international travelers

The description of the results of statistical analysis of 466 data subjects (respondents) in May-June 2021, it is known that the oxygen saturation of normal respondents is 436 people (93.6%) and 30 people are abnormal (6.4%). The results of the bivariate analysis showed that there were 25 respondents (10.7%) with abnormal oxygen saturation and 208 respondents (89.3%) with normal oxygen saturation who had positive swab results. Statistical test results show that there is a significant relationship between the traveler's oxygen saturation and a positive swab result, p-value 0.000, with an OR value of 5,481.95% CI 2,060-14,580) which means that the group of respondents with abnormal oxygen saturation has the opportunity to be exposed to COVID-19 by as much as 5,481 times higher than normal oxygen saturation. The results of the multivariate test showed that the risk decreased to 3,678, 95%CI 1,056-12,800. This research is in line with [5,9,17,21], most of the cases have lung conditions that can reduce oxygen saturation levels in the blood. In addition, abnormal oxygen saturation occurs in people with lung conditions such as a study conducted by [14], so it can affect the body's ability to compensate for oxygen demand.

The Final Conclusion of this Study

Long journey of more than 2 hours has a positive effect on Covid19, followed: high temperature, working, close contact, Indonesian citizen, Oxygen saturation below 95%, out of breath, Country of arrival high risk of Covid19, have another covid19 Symptoms, gender female majority, age >39 years old.

Recommendation

When pandemi Covid19 limited to people traveling abroad because it is difficult to get people to comply with health protocols, even though airport waiting rooms and airplanes have been disinfected and the use of hepa filters.

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