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THE RELATIONSHIP RESPONSE TIME OF ACUTE CORONARY SYNDROME (ACS) AND STATUS ALTERATION OF HEART RHYTHM OF ACS PATIENT IN EMERGENCY DEPARTMENT AT TK II DR SOEPRAOEN MALANG HOSPITAL Rahmania Ambarika, Novita Ana Anggraini Lecturer of Health Science Institute of Surya Mitra Husada Kediri, East Java, Indonesia C's Email.com ABSTRACT The quickness of assistance handling in order to prevent disability or death due to a certain illness is called response time.

The response time is necessary at emergency department for ACS (Acute Coronary Syndrome). This directly the heart rhythm. The aim of this research is to know the relationship between response time of ACS and heart rhythm status in emergency department at Tk II dr Soepraoen Malang hospital. Design in this research is deskriptif using Cross Sectional. Sampling technique used is Sampling Accidental by 15 respondents as samples.

Data collection is by means of observations and medical records, then those data were tabulated and processed using Chi-Square. The result of this research shows that mainly respondents (53%), which are 8 respondents, were included quick in doing response time of arranging ACS patients by less than 10 minutes, while there were 8 (53%) whose improvement of heart rhythm. From Chi-Square test result, it was obtained P value  $<0.05$  ( $\alpha = 0.05$ ).

It means that there was significant relationship between response time and alteration of heart rhythm. The quick response time in handling ACS which is less 10 minutes significantly affected to the alteration of heart rhythm because by quick handling, coronary reperfusion will be normalized. This can be seen at EKG image of ACS patient.

INTRODUCTION ACS depicts acute diseases with high mortality and it is also an acute coronary as effect of ischemia miokard (Perki, 2015). Patient with ACS is one of cases found in emergency room. If a care of coronary syndrome patient is late, it can make mortality risk. This situation makes coronary heart attack the death diseases in the world.

Because the care of response time is slow, it makes a change of heart rime or it makes patient EKG worse (Depkes RI, 2007). According to American Heart Association (2014), in medical article of Herbalist states that based on research, every 34 seconds, one American gets heart attack. So, it can be concluded that every years, more than one million Americans suffer ACS. According to detik.com (2011), ACS attacks male patients 56%, higher than female do. WHO data (2017) showed that heart attack and stroke are the main cause of mortality in the world.

Its victims are 17.1 million people each year. In Indonesia, the mortality number of heart coroner patients is 7.6 million people each year, and 325 cases such as; heart attack patients passed away before arriving in hospital. It becomes sadder, because heart coroner attacks not only old man but also young men, under 40 years old (Republika, 2013).

Data released by Indonesian health minister in 2014 stated that a country with high capita income experiencing early mortality because of heart attack is 4%, while in low income country is 42%. The mortality caused by heart coroner and vena is predicted higher and higher until 23.3 million deaths in 2030. The research result conducted by Aloysius, Wijaya, and Wulandari in dr.

soetomo general hospital of Surabaya showed an evident that there were amount number of ACS patients in east-java province. It is stated in science and art journal (2015). Based on diagnose and symptom, it is estimated that the total number of ACS patients in east-java province is 375.127 patients or 1.3% of its population in Indonesia. Based on the fantastic patients, east- java province is in the highest level of ACS patient in Indonesia.

Based on medical report in dr. soepraun general hospital of Malang, the data, gotten in 2015, showed that patients with ACS case were 134 patients, while in 2016, it rose and became 163 cases. Based on data on February 2017, patients diagnosed ACS was 22 people. The previous study conducted on the first week in March 2017 in emergency room of dr.

soepraun general hospital of Malang was found a data that 5 patients diagnosed ACS.

The response time for the five patients some were late, and others were fast. It means that the time response of ACS patients in dr. Soepraun general hospital of Malang is more than WHO standard, <10 minutes. The run-down of patient time response based on the observation conducted were: patients got first care in 9 minute, the second care was in 15 minutes, the third one was in 18 minutes, the fourth one was in 15 minutes, and the last one was in 12 minutes.

So, the result of EKG series could not recover normally if the response time was slow. The care and response time for heart coroner patients must be fast and effective response. To prevent the slow care of heart coroner patients, it is applied the standard care of heart coroner patients based on perki standard operational procedure.

The standard limit of time response for ACS patients in emergency room is around 10 minutes from medical first aid until EKS report and early placing conducted. While the time allocation from first aid of medical care to reperfusion therapy is around 30 minutes if patients were indicated breast-ache in 12 hours with EKG visual found segment elevation of fixed ST. The next care is PCI intervention.

If it is conducted by experienced team, it needs 120 minutes from first-aid of medical care. This care is not suggested for stuck artery for more than 24 hours after the symptom on patients indicated ACS (Perki, 2015). The significant of response time of ACS patients determines the success of care to patient. The sooner of care, the bigger life chance patients have.

The benefit of response time mechanism can determine the expanse damage of internal part of bodies especially coronary artery. Speed and accuracy of care to patients of ACS needs appropriate standard, **so they can be** cared soon and accurately. This care must be supported by increasing the medical facility, human resource and hospital management based the right and fixed standard (WHO, 2008).

The bad effect may occur when its care is more the standard. Patient will be in bad condition, so it can change the EKG, and can cause heart rhythm stop. It must be avoided to press the risk of patient mortality. Fast care can be the best solution in maximizing heart coroner and miizpaticoain. e, lipossiitand ysisical of patients can be minimized. (Perki, 2015) Response time has significant role in the change of heart work be better.

The maximal response time, it may make prescription and service better. It can affect positively to return heart rhythm stuck before, while patients are in heart attack. So, the chance of success in normalizing the heart work can be reached fast and maximally.

Giving the right and fast therapy will fasten heart rhythm (Perki, 2015).

Based on the background above, researcher is interested in knowing more about response time of ACS, with heart rhythm status change to patients of CAS in emergency room of dr. soepraun general hospital of Malang. METHODOLOGY This research uses quantitative research method by applying cross sectional approach and its approach is by observation and point time approach.

The population in this research is ACS patients in emergency room of dr. soepraun general hospital of Malang. The samples are all patients in emergency room of dr. soepraun general hospital of Malang visited during the research conducted from July 4 to August 30, 2017. They were 15 people. This research uses accidental sampling. ] Based on the data gotten from the field, it is found that the tabulation of response time of ACS patients in dr.

soepraun general hospital of Malang on July 4 to August 30, 2017 as follows in table 1: Table of Response Time of ACS patients Response Time percentage Fast 8 53,3% Slow 7 47,7% Total 15 100% Based on table 1, it is found that most respondents, 8 respondents/53.3%, with fast response time 10 minutes. The tabulation of status change of heart rhythm of ACS patients in emergency room of dr.

soepraun general hospital of Malang on July 4 to August 30, 2017 as follows in table 2: The table of heart rhythm change of ACS patients Heart Rhythm Percentage Better 8 53,3% Stuck 7 47,7% Worse 0 0% Total 15 100% Based on the data above, it is found that most respondents, 8 respondents/53.3%, with fast response time less than 10 minutes.

The tabulation relation of response time of ACS patients and the status change of heart rhythm of ACS patients in emergency room of dr. soepraun general hospital of Malang on July 4 to August 30, 2017 as follows in table 3: Cross Tabulation between variable of response time and the change of heart rhythm Based on the data above, it is found that most respondents, 8 respondents/53.3%, of status change of heart rhythm of ACS patients are better.

RESULTS The result of statistics test of response time of ACS patients with status change of heart rhythm of ACS patient in dr. soepraun general hospital of malang, as follows: Response time percentag e Change of heart rhythm percentage Fast 8 53,3% Better 8 53,3% Slow 7 46,7% Stuck 7 46,7% Worse 0 0% Total 15 100% 15 100% Chi-Square Test ? 2 hit ? 2 tabel (df = 1; = 0,05) Asymp sig.

(2-sided) note 11,429 3,841 0,001 Signifi cant Based on the table above, it is known that Asymp.sig score (2-sided), (p value) < 5 is 0.001 so Ho is rejected while H1 is accepted. It means that there is significant correlation between variable of response time and heart rhythm change. DISCUSSION Based on the research result, it is found that response time of ACS patients with the status change of heart rhythm of ACS patient in emergency room of Dr. Soepraun general hospital of Malang shows that from 25 respondents, some of them, 8 respondents (53.3%) got fast response, less than 10 minutes while others, 7 respondents (46.7%), got slow response, more than 10 minutes.

ACS is an chronic heart situation where clinic application as the effect of Ischemia Miocard (Health minister of Indonesia, 2006). ACS is also cardiovascular main problem affecting to the high number of hospital treatment and mortality. It was strengthened by Ser's opinion (2010), it was stated that ACS is the emergency condition because it can affect miocard if definitive intervention is not done immediately. ACS is an imbalance between oxygen supply and demand of heart (Rokaeni, 2001).

The significance of response time to coronary heart patient determines the success of aid to the patient. The sooner the care, the bigger life chance they have (WHO, 2008). Sfactors the ticarare ge, ivation, nurse's ability in conducting response time (Mangkunegara, 2000).

Based on data gotten from the observation of 15 ACS patients in dr Soepraun of Malang, it was found that the care ran around 4 minutes up to 17 minutes. Response time lasted less than 10 minutes for 8 patients while the rest, 7 patients, were handled more than 10 minutes. The better change of heart rhythm happened on 8 patients and 7 others were in stuck condition.

8 patients received response time in emergency room for less than 10 minutes. 7 patients received response time more than 12 minutes to 17 minutes. In handling and placing ACS patients, response time must be stressed and calculated because ACS patients must be cared soon because time determines the effect of care. Medical officials are demanded to do fast based on the procedure of PERKI, so that the result will be more maximal especially on the case of ACS.

Mortality number can be minimized or prevented. Berdasarkan hasil penelitian dan pembahasan hubungan antara respons time penatalaksanaan ACS (Acute Coronary Syndrome) dengan perubahan status irama jantung dapat disimpulkan sebagai berikut: Based on the research result and discussion, the correlation between response time of placing ACS patients and the status of heart rhythm can be concluded as follows: 1. From 15 respondents, most respondents (8 / 53.3%) got fast response time, less than 10

minutes, while 7 respondents (46.7%) got slow response time, more than 10 minutes. 2. From 15 respondents, most respondents (8 / 53.3%) got fast response time, less than 10 minutes, showed the significant change, while 7 respondents (46.7%) got slow response time, more than 10 minutes showed the stuck change. 3.

The result of Chi-Square conducted to 15 ACS patients was gotten that 9 patients felt better on their heart rhythm, but 7 of them did not. 8 patients received fast response time, less than 10 minutes, and 7 patients received the response time more than 10 minutes, so it could be stated that there is correlation between response time and the change of heart rhythm of ACS patient in dr. soepraun general hospital of Malang.

SUGGESTION **Based on the conclusion** above, the suggestions are: 1. For nurse Nurse must increase their knowledge, quality, and skill in increasing the medical service / response time to patients, especially to ACT patients. 2. For dr. soepraun general hospital To its staffs' knowledge, and the hospital can commit its staff to join seminar, workshop, and training related to cardiology cases. 3.

for researcher The research result is hoped that it can be the standard or reference for the further research, so it can be more useful for public service in general hospital especially in emergency room. REFERENCE Aaronson, Phillip, Ward, Jeremy (2010), Sistem Kardiovaskular. Edisi ke 3. Jakarta: Erlangga. Aloysius, Pingit. (2015). Analisis Survival pada Pasien Sindrom Koroner Akut di RSUD dr Soetomo Surabaya . Ceriello, A. (2005).

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