Research Article

The Relationship between the Number of Emergency Room Patient Visits with Triage Accuracy and Emergency Nurse Response Time in the Covid 19 Pandemic Season

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ABSTRACT. Handling emergency cases must not only be carried out quickly but also must be precise. Standard Operating Procedures (SOP) is one of the instruments to measure the quality of service. the number of patient visits that can affect the quality of service. Triage is a way of sorting patients based on therapy needs and available resources. Therapy is based on ABC conditions (Airway, with cervical spine control, Breathing, and Circulation with bleeding control). On the other hand, the COVID-19 pandemic greatly affects the response time, impacting the number of patient visits. Response time is the time between the beginning of a request being responded to in other words it can be called response time. A good response time for patients is 5 minutes. The purpose of this study was to identify the relationship between the number of patient visits and the accuracy of triage implementation and response time. The electronic database used is PubMed, Springer, and Google Scholar with a search strategy using the PICO (patient, intervention, comparison, and outcome) method.

Keyword: Triage, accuracy, Response Time, Pandemic covid 19, Standard Operating Procedure

A. INTRODUCTION

Emergency conditions are clinical conditions in which patients require immediate medical action to save lives and prevent further disability (Law of the Republic of Indonesia No. 44 on Hospitals, 2009). Hospitals, more specifically the IGD (Emergency Installation), one the goals is to achieve optimal health services for patients quickly and accurately and integrated into handling the emergency level so as to prevent the risk of death and disability (to save life and limb) with a response time of five minutes and the definitive time is not more than two hours (Basoki et al, 2008 in Yanty, Darwin & Misrawati, 2011).

Triage is an important aspect in treating patients in the ER in the form of an initial assessment carried out during the patient's admission to the ER. Triage is the most important step in the emergency room. The main goal of triage is to reduce morbidity and mortality for all patients admitted to the ED (Garbez et al., 2011). Hospital triage or popularly called emergency triage according to Fathoni, Sangchan, & Songwathana in Proehl consists of primary and secondary triage. Primary triage is concerned with the primary assessment procedure and the allocation of patients to treatment. Secondary triage is related to the initiation of nursing interventions and providing comfort to the patient. Triage assessments that are not in accordance with the patient's condition have a risk of increasing morbidity, affecting patient care outcomes, or the outcome criteria that will be set for patient care. This also has an impact on the Length of Stay (LOS)
or the length of time the patient is in the emergency room, and the estimated time given to the patient is also not on target. Response Time is the speed in handling patients by nurses 5 minutes when the patient arrives at the health care unit. Response Time with standardized speed handling can be a good service process in the ER thereby increasing the number of life safety and the number of patient visits. Standard Operational Procedure for Triage Services which divides primary and secondary triage services. It was also conveyed that during the handling of patients, especially the implementation of triage, there were often errors in the implementation of triage services according to Standard Operating Procedures (SPO), some nurses said this was due to the large number of patient visits that were not proportional to the number of nurses in connection with the uncertain number of patients, which comes.

B. RESULT AND DISCUSSION

Purpose
The purpose of this literature review is to analyze the number of ER patient visits with a triage system and the nurse's response time in handling patients in the ER during the COVID-19 pandemic season.

Research question
The effectiveness of the triage system and nurse response time in handling patients in the ER during the COVID-19 pandemic season

Problem : Number of Patient Visits
Intervention : Triage System and Response Time
Comparison : -
Outcome : Increasing Number of Patients During Pandemic Season

Literature Search
The literature search was carried out by identifying all types of national and international articles regarding the relationship between the number of emergency room visits and the accuracy of triage and response time of emergency room nurses in the Covid-19 pandemic season. The electronic database used was PubMed, Springer, and Google Scholar with a search strategy using the PICO method (patient, intervention, comparison and outcome) (Smith & Noble, 2016).

a. Keywords
The keywords used in the literature search are a combination of keywords such as the following: Number of Emergency Room Patient, Triage Accuracy, Emergency Nurse Response Time, Covid 19 Pandemic Season, .. Search results are limited to 2015 to 2019, as well as manually selecting articles that are relevant or in accordance with a research question (Figure 1).

b. Inclusion Criteria
Article inclusion criteria are:
1. The number of patients experiencing an increase or decrease in the COVID-19 pandemic season
2. The intervention used is the accuracy of Triage and Response Time in handling patients in the ER
3. The results of the study show that there is an effect on the number of patient visits if the nurse applies the triage system and the right response time in the COVID-19 pandemic season

c. Exclusion Criteria
Exclusion criteria are articles that are not relevant to the research question
Advantages if triage and response time with a place in the covid 19 pandemic season

Hospital Service Standards are all service standards that apply in hospitals, including standard operating procedures, medical service standards, and nursing care standards (Kepmenkes, 2012). Misdiagnosis in the emergency room has complex causes. Factors that contribute to misdiagnosis are cognitive, communication, system, and patient-related factors. One of the factors related to the system is excessive workload which can be caused by the large number of patient visits (Kachalia, et. al. 2006).

Triage is an action in which patients are classified based on the priority of the emergency. Patients who experience emergency conditions (red cards), emergency and non-emergency conditions (yellow cards), non-emergency and non-emergency conditions (green cards) and death arrivals (black cards) (Sudrajat, 2014).

Triage guidelines are important for nurses and medical personnel in conducting triage. The triage system development model developed in various countries in the world is made and adapted to the conditions and needs of the country and is used as a guide in its implementation. This is explained by Dippenaar & Bruijns who stated that triage systems were developed around the world to meet needs based on regional characteristics, the perspective of health care providers, and users or users.

The emergency services have now begun to develop a new development model in terms of triage. Initially, hospital triage developed based on disaster triage, using color. But now, the use of triage in hospitals is growing using a number scale, such as the Australian Triage System (ATS), Canadian Triage System (CTAS), Manchester Triage System (MTS), Emergency Severity Index (ESI), South African Triage System (SATS), and Patient Acuity Category Scale (PATS). Hospitals in the city of Padang include hospitals that have started to develop triage assessment using numbers, by adapting triage assessment according to ATS.

According to Moewardi (2003), one indicator of the success of medical treatment for emergency patients is the speed of providing adequate assistance to emergency patients, both in daily routine situations or during disasters. The success of the response time or response time is very dependent on the speed
available and the quality of providing assistance to save lives or prevent disability from the scene of the incident, on the way to hospital assistance (Haryatun and Sudaryanto, 2008).

Response time is the time between the beginnings of a request being responded to in other words it can be called response time. A good response time for patients is \( \leq 5 \) minutes (Minister of Health, 2009). Service response time can be calculated in minutes and is greatly influenced by various things, both regarding the number of personnel and components. Other supporting components such as laboratory services, radiology, pharmacy and administration. Response time is said to be on time or not late if the time required does not exceed the existing standard average time (Haryatun and Sudaryanto, 2008). Emergency services are said to be late if services for emergency and/or emergency patients are served by hospital emergency room officers > 15 minutes (Hospital KPPGD Figures, 2012). In emergency cases such as if we work in the emergency room, we must be able to manage a good flow of patients, especially in a limited number of rooms, prioritize patients, especially to reduce the amount of morbidity and mortality, as well as labeling and categorizing (Musliha, 2010).

**C. CONCLUSION**

The number of patient visits greatly affects the health of the existing system in the hospital, for example the amount of income, the number of BOR of inpatients and patient visits in the ER, the use of the triage system and response time in the leading service, namely the ER in this pandemic season. Important in increasing the number of patients because the ER is the front line for patients.

**REFERENCES**