

## Conference Paper

# Experiences of Emergency Nurses in Carrying Out Triage During the Covid-19 Pandemic: A Qualitative Study

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**Abstract.**

The Covid-19 pandemic is one of the biggest challenges to health systems' ability to continue to provide good medical services. The development of the Covid-19 pandemic has required all hospitals to be able to adapt quickly and precisely to ensure safe services for patients and staff. The emergency department is the main gate for receiving patients with various emergency cases, both positive and negative for Covid-19. During the pandemic, the emergency room has been crowded with patients with symptoms that point to Covid-19. The high number of patients is a stressor and a challenge for the staff. In this case, the triage procedure is key in determining the patient's emergency condition and the intervention to be carried out. The ideal triage system should be standardized and reliable in its implementation to achieve clinical efficiency in determining treatment. This was a phenomenological qualitative study to explore the experience of emergency room nurses in conducting triage during the Covid-19 pandemic. The study was conducted at the emergency department of the University of Muhammadiyah Malang Hospital with a total of 4 participants. Data collection was carried out by in-depth interviews. The interview process was conducted using an interview guide and a recording device. Based on the results, the following themes were obtained: 1) the triage method used was disaster triage with visual triage; 2) EWS screening of Covid-19 patients; 3) dishonesty of patients and family; 4) triage was not performed in a standardized way because of the condition of the hospital; 5) distancing of patients with Covid-19 from others; and 6) guilt when refusing patients.

**Keywords:** triage, nurse, emergency room, pandemic

## 1. INTRODUCTION

The COVID-19 pandemic condition is one of the biggest challenges for the health system, including the development of surge capacity so that the increasing need for medical services can be properly met. The development of the COVID-19 outbreak requires all hospitals to be able to adapt quickly and precisely and ensure safe services for patients and staff. The emergency department (IGD) is the main gate for receiving patients with various emergency cases, both positive for covid 19 and non-covid 19.

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During the pandemic, the emergency room situation is crowded with patients with symptoms that lead to covid 19. The high number of patient visits to the emergency room is a stressor and challenge for officers. In this case, the triage procedure is the main key in determining the patient's emergency condition and the intervention to be carried out.

Triage is a decision-making process in prioritizing the needs and therapy given to patients in the ER based on the level of emergency [1]. The existence of an optimal and systematic triage system can reduce the waiting time (length of stay) of patients in the ER and improve the quality of health services [2]. In its application, triage guidelines are important for triage officers and medical personnel in determining the success of interventions and medical management for patients because they can be used as a reference in determining patient emergency actions [2]. Failure to determine the right priority level based on triage will result in delayed intervention in patients with critical conditions which will have an impact on worsening conditions that can lead to morbidity and mortality.

The COVID-19 pandemic condition brings unusual conditions in terms of categorizing patient conditions through triage procedures. The triage process needs to be carried out quickly, accompanied by the use of strict PPE and strict health protocols. This condition certainly increases the stressor for emergency room staff. Several recent adjustments to triage procedures during a pandemic must be adapted quickly. Triage for patients during the COVID-19 pandemic is carried out by looking at the airway, breathing, circulation, and disability indicators as well as the patient's virulence level with the Covid 19 EWS Screening indicator. The Covid 19 EWS screening, allows health workers to quickly and relatively accurately detect patients suspected of having COVID 19.

The results of a preliminary study of emergency room nurses on triage procedures showed that the Covid-19 pandemic condition often made it difficult for nurses to prioritize patient categorization. All patients who come to the ER are treated as suspected Covid patients, which often causes an accumulation of patients. Adaptation to the use of the Covid 19 EWS Screening is a separate obstacle for nurses in conducting triage. Triage is an important and main thing to do in addition to avoiding a surge in patients from the limited capacity of hospitals and medical personnel, on the other hand, not everyone who is tested positive for Covid 19 must be treated in a hospital but can self-isolate at home, especially for those who do not show symptoms.

## 2. METHODS

## 2.1. Study design and research area

The author employed a qualitative research design method as a strategy. Individuals are used as study material by researchers to focus attention on a situation. This study aims to collect data and delve deeper into a topic that is currently occurring. The goal of this study was to learn more about the experience of emergency nurses who were practicing triage during the pandemic. The research will take place in Malang, and it will last for two weeks beginning in March 2021.

## 2.2. Research settings

The number of participants in this study consisted of 4 emergency room nurses who had experience in triage during the covid 19 pandemic. The selection of participants based on inclusion criteria were emergency room nurses who had at least 1 year of experience working in the emergency room, had done triage during the covid 19 pandemic, and were willing to be a participant. Interviews were conducted in approximately 45-60 minutes.

TABLE 1: Demographic of participants.

No	Data	P1	P2	P3	P4	Total	
1	Age (Year)	21-30			√	1	
		31-40	√	√		√	3
		41-50					0
2	Gender	Female			√		1
		Male	√	√		√	3
3	Education	Diploma Nursing					0
		Professional Nursing		√	√	√	3

## 2.3. Data collection processes and instruments

The researcher conducted a semi-structured interview in which he identified a problem and asked the respondent's perspective. Researchers were supposed to be able to pay close attention to what respondents had to say about emergency nurse triage during pandemic covid 19. During the interview, the researcher prepared the necessary equipment, such as pens, paper, and a voice recorder. Four people took part in this interview.

## 2.4. Data Validity Test Method

Triangulation is a data analysis approach that involves checking or comparing obtained data with existing evidence by employing other data.

## 2.5. Data analysis

The procedure of assessing data from each theme entails looking at several statements extracted from the outcomes of participant interviews. This strategy is used to help researchers with data collection, subject matter determination, and problem-solution planning.

## 3. RESULTS

The results of this study are the results of in-depth interviews conducted with participants. Data analysis was carried out inductively which in the end resulted in a series of themes related to the experience of emergency room nurses in conducting triage during the Covid 19 pandemic. Based on the results of data analysis, the following themes were obtained: 1) The triage method used was disaster triage with visual triage, 2) EWS screening of covid 19 patients, 3) Dishonesty of patients and family, 4) Triage was not performed on a regular basic ideal because of the condition of the hospital, 5) Distancing of ER Covid and Non-Covid, 6) Guilt when refusing patients.

TABLE 2

No	Themes
1.	The triage method used was disaster triage with visual triage
2.	EWS screening of covid 19 patients
3.	Dishonesty of patients and family
4.	Triage was not performed on a regular basic ideal because of the condition of the hospital
5.	Distancing of Emergency room covid and non Covid
6	Guilt when refusing patients

## 4. DISCUSSION

Triage guidelines are important for triage officers and medical personnel in determining the success of interventions and medical management for patients because they can be used as a reference in determining patient emergency actions [3]. Failure to determine

the appropriate priority level based on triage will result in delayed intervention in patients with critical conditions it will have an impact on worsening conditions that can lead to morbidity and mortality [1]. The ability of health workers to carry out triage will affect the accuracy of interventions to be carried out on patients [4] There are several factors related to nurses' skills in triage, including knowledge of triage, training experience and work experience [5]. This statement is also supported by Dadashzade, et al (2013) who says that the accuracy of triage decision making is influenced by personal factors of triage officers which include experience, assessment skills, training that has been followed, strength in making decisions, skills and teamwork, flexibility, knowledge, the sharpness of the ability to recognize problems.

In addition, other research states that doing the right triage requires high cognitive processes as well as skills, expertise, competence, qualifications, and readiness in triage decision making [3]. Other results add that sufficient work experience, awareness of signs and symptoms of disease, adequate equipment, and resources have a very important role in doing the right triage. Meanwhile, Anderson, et al (2006) said that the accuracy of triage is determined by internal/intrinsic factors which include fear of making mistakes in dangerous situations, insight, clinical qualifications, and abilities of nurses as well as external factors such as work environment stress, high workload, and the density of the work environment.

Early Warning Score (EWS) is an early detection system to find out the health problems of patients in hospitals. This system is a concept used to improve patient safety and better patient clinical outcomes by standardizing the assessment approach and setting the scoring of physiological parameters. EWS is a simple assessment tool to determine physiological scoring in hospitals before a patient experiences an emergency condition [6]

EWS can predict the Covid-19 virus within 48 hours. Research conducted in China stated that the EWS was able to detect the condition of the patient significantly. The early warning score was developed to be able to determine which patients need intensive monitoring and determine the action to be taken [7]. Based on the results of a study by Covino et al., (2020) related to EWS in Covid-19 patients in the ER, it was found that of the 3955 patients who participated and were screened using EWS, it was found that 176 of these patients were confirmed positive for Covid-19. The components of the EWS screening include 7 parameters, namely: age, respiration rate, oxygen saturation, blood pressure, pulse, awareness, and temperature. Apart from using EWS, several other studies use other methods to screen Covid-19 patients.

According to research by Jang et al., (2020) screening was carried out on 110 patients who were confirmed positive for Covid-19 using the SIRS and qSOFA methods, the results were effective but there were 3 parameters assessed, namely: respiratory rate, GCS, and systolic blood pressure.

## 5. CONCLUSION

Based on the results of research that has been done, it can be concluded that the experienced triage in the emergency nurse's doing triage in pandemic have six theme:1) The triage method used was disaster triage with visual triage, 2) EWS screening of covid 19 patients, 3) Dishonesty of patients and family, 4) Triage was not performed on a regular basic ideal because of the condition of the hospital, 5) Distancing of ER Covid and Non-Covid, 6) Guilt when refusing patients

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