



Evaluation of the Triage System in Handling Emergency Patients at the Ketapang Sub-Health Center, Sibolga Ilir Sub-district

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ABSTRACT

Emergency services are a crucial component of the healthcare system as they are directly related to saving patients' lives. The triage system plays a role in determining the priority of patient care based on their severity, thereby improving service effectiveness. This study aims to evaluate the implementation of the triage system in handling emergency patients at the Ketapang Sub-district Health Center, Sibolga Ilir. This study used a quantitative descriptive design with an observational approach. The population in this study were all emergency patients who came to the Ketapang Sub-district Health Center, with a purposive sampling technique. The research instruments were observation sheets and a triage implementation checklist. Data analysis was conducted univariately. The results of this study are expected to provide an overview of the level of accuracy of triage implementation and the factors that influence it. The conclusions of this study are expected to serve as a basis for improving the quality of emergency services, particularly in the implementation of the triage system in primary healthcare facilities.

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1. Introduction

Emergency services are a vital component of the health care system because they are the first port of call for patients with life-threatening conditions. (Prahmawati, Rahmawati, & Kholina, 2021), (Saputri, 2022) The triage system is used to determine the priority of patient treatment based on the level of urgency so as to optimize the use of limited resources. (Fatriani, Masfuri, & Waluyo, 2020), (Agusni, 2021).

Globally, triage systems have been proven to reduce mortality rates in emergency departments. The implementation of systems such as the Emergency Severity Index (ESI) has demonstrated effectiveness in improving the speed and accuracy of patient care. However, (T. Susilo et al., 2025), (Farilya, Alfian, Sulahyuningsih, & Syahril, 2023), the implementation of triage also has risks such as overtriage and undertriage, which can affect the quality of health services. (Ramli, 2024), (Khairina, Malini, & Huriani, 2020).

In Indonesia, emergency services are provided not only in hospitals but also at primary health care facilities such as Community Health Centers (Pustu). Limited staffing and facilities pose a challenge

to optimally implementing a triage system.(NC Susilo, Kep, Yuliati, Hasan, & Andhini, 2025),(Suleman & Piola, 2024).

The results of Kurniasari's research (2016) stated that there was no relationship between determining the ESI level and patient satisfaction, so that in the process of determining the ESI, whether the patient was in triage at ESI level 1 or ESI 2 or others, there was no relationship with whether the patient was satisfied or dissatisfied with the service.(Kurniasari, 2016),(Hakim et al., 2022)Meanwhile, other research results state that patient satisfaction can be achieved by reducing response time with the use of ESI triage.(Rachma, 2023),(Hakim et al., 2022).

In primary healthcare settings such as Community Health Centers (Pustu), the triage system also plays a crucial role. Healthcare workers are often the first responders to patients with various emergency conditions. Therefore, their ability to perform triage accurately is crucial to the quality of care provided.(Suleman & Piola, 2024),(Ramadhani, 2021).

The Ketapang area of Sibolga Ilir sub-district is a coastal area with a high risk of emergencies, making the implementation of an effective triage system crucial. Therefore, an evaluation of the triage system's implementation is necessary to improve the quality of health services.(DHEANINDYA SARI, 2020),(Hakim et al., 2022).

2. Methods

2.1 Research Design

This study uses a quantitative descriptive design with an observational approach.

2.2 Place and Time of Research

The research was conducted at the Ketapang Sub-Health Center, Sibolga Ilir Sub-district in 2025.

2.3 Population and Sample

The population consisted of all emergency patients attending the Community Health Center (Pustu). The sample was taken using a purposive sampling technique.

2.4 Research Variables

The main variables in this study are: Implementation of the triage system, Accuracy of triage categories, Constraints in implementing triage

2.5 Research Instruments

The instruments used are: Observation sheet, Triage implementation checklist

2.6 Data analysis

The analysis was carried out univariately to describe the frequency distribution of each variable.

2.7 Research Ethics

This research pays attention to ethical principles: Informed consent, Confidentiality of respondent data, Non-maleficence

3. Results and Discussion

The research results will be presented in the form of a frequency distribution table that describes: (a) Respondent characteristics, (b) Level of triage accuracy, (c) Constraints in implementing triage

Based on the results of a study conducted on 30 health workers at the Ketapang Community Health Center in Sibolga Ilir Village, the results showed that the majority of respondents, 16 (53.3%), were in the good category regarding the implementation of the triage system. Furthermore, 9 (30%) were in the adequate category, and 5 (16.7%) were in the poor category. These results indicate that the implementation of the triage system at the research location has generally been quite good, but not yet fully optimal.

3.1 Discussion

A good triage system will improve service speed and patient safety. Inaccurate triage, such as undertriage and overtriage, can lead to delayed treatment or inefficient use of resources. Factors influencing triage implementation include: healthcare worker competence, facility availability, and standard operating procedures (SOPs).

4. Conclusions

The triage system plays a crucial role in improving the quality of emergency services. Evaluation of triage implementation is necessary to ensure appropriate patient care. These findings indicate that most healthcare workers are competent in implementing triage procedures in emergency patient care, such as conducting an initial assessment, recognizing the patient's severity, and determining treatment priorities. This indicates that the triage system at the Ketapang Community Health Center in Sibolga Ilir Village has been implemented in emergency services.

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