THE ROLE OF NURSING IN TRIAGE: FROM LITERATURE REVIEW TO CASE STUDY

Phan Thị Hoai[1], Pham Van Hiep[2], Phung Thi Hoa[3], Nguyen Thi Thanh Tra[4], Hoang Ngoc Phuong[5], Nguyen Du Khanh[6], Nguyen Bich Huong[7] Pham Thi Hang[8], Le Tu Minh Hoang[9]

1.2.4.5.6.7.8.9. National Otorhinorarynology Hospital of Vietnam

3. University of Medicine and Pharmacy, Vietnam National University, Hanoi

https://doi.org/10.60137/tmhvn.v70i74.241

ABSTRACT

Objective: To analyze nursing decisions and actions in clinical cases to strengthen the nursing role in triage of emergency patients.

Method: Case study.

Results: We describe a case of a patient with laryngeal dyspnea with the aim of highlighting the important role of nurses in early detection of signs of patient deterioration and timely implementation of coordinated emergency actions, contributing to ensuring safety and quality of care.

Conclusion: Emphasize the indispensable role of nurses in triage of patients.

Keywords: Nursing role, triage, laryngeal dyspnea.

---

* First author Pham Văn Hiep Phone number: 0986175299

Email: tranghiep92@gmail.com

Date of receipt: 30/7/2025 Date of receipt of feedback: 03/11/2025

Date of receipt of review: 08/11/2025 Date of approval for publication: 15/11/2025

1. Overview

In the current healthcare landscape, Emergency Departments (EDs) around the world are faced with an ever-increasing number of patients presenting with a variety of clinical problems of varying degrees of urgency, from life-threatening to less severe conditions [1, 2]. This overload requires an effective method to rapidly identify and prioritize those patients who are most in need of urgent care [1, 2].

Triage, derived from the French word "trier" meaning to sort or arrange [1], is an essential function in the Emergency Department setting [3, 4]. The history of triage dates back to the military, with its earliest recorded use dating back to the 18th century and developed by military surgeons to rapidly assess combat casualties [1]. The first formal triage system was introduced in civilian hospitals in 1964 [1]. Since then, many triage systems have been developed and implemented around the world [1, 2].

The overall goal of triage is to provide efficient and prioritized care to patients, while optimizing the use of resources and time [1, 2]. This process ensures that patients are treated in order of priority based on their clinical urgency, i.e. the need for timely intervention [1, 3, 4]. The Australasian Triage Scale (ATS) is one of the commonly used 5-level scales designed to determine the clinical urgency of patients presenting to the ED [2, 3, 5]. Each ATS level corresponds to a maximum recommended waiting time for patients to be assessed and treated medically [4-6].

In the ED, nurses are often the first point of contact and perform the triage role [2, 4]. This is a complex role that requires nurses to be able to make important clinical decisions within a limited time frame, often only two to five minutes, based on a combination of the presenting problem, general condition, and relevant vital signs [3, 4]. Triage nurses typically have advanced training in decision making and possess the skills necessary to make appropriate triage decisions [2]. Triage by experienced emergency nurses has been shown to be safe, effective, and cost-effective [2]. However, triage is a multidimensional and complex process [1, 3, 4]. A patient's condition may change while awaiting evaluation and treatment [3, 4]. Therefore, the ability to recognize changes and perform timely

reclassification is extremely important to ensure patient safety [3, 4].

The following clinical case report will delve into the patient's clinical course, analyze nursing decisions and actions in the changing situation, and draw lessons to strengthen the nursing role in triaging emergency patients.

2. Case introduction

Patient Tran Thi H, 45 years old, came to the ED of the ENT Hospital at 2:30 pm on Thursday, March 29, 2022. She came with the main reason of hoarseness and mild shortness of breath, especially when talking a lot or doing light exercise, this condition has lasted for about 3 days.

At the initial reception, nurse C asked for medical history and Ms. H described a hoarse voice, sometimes with a dry cough. Nurse C observed that the patient seemed a bit tired, her voice was hoarse but still clear. Based on the initial assessment of the symptoms not being too acute and in the context of the crowded clinic, nurse C determined that this could be a case of common laryngitis and instructed the patient to go to the department's emergency clinic to wait for the doctor to examine her.

However, after about 20 minutes of waiting while talking on the phone, Ms. H felt her shortness of breath getting a little worse. She began to hear a slight wheezing sound when she took a deep breath and the discomfort in her neck increased. Worried about this change, Ms. H returned to the ED reception desk and reported her condition to nurse D.

Clinical development, initial treatment:

Upon receiving information from the patient and noticing the change in Ms. H's condition, nurse D quickly reassessed. Based on new signs such as mild stridor, more pronounced hoarseness and increased difficulty breathing, nurse D immediately thought of the possibility that the patient was experiencing grade 1 laryngeal dyspnea. The initial management and treatment process was carried out quickly by nurse D and coordinated with the emergency physician:

- Urgent notification to the emergency physician: Nurse D immediately contacted the emergency physician, described in detail the change in Mrs. H's condition and expressed suspicion of laryngeal dyspnea.

- Keep the patient calm: Nurse D reassured patient H, explaining that her condition was being closely monitored and that she would be examined immediately by a physician in the department's emergency room.

- Assisting the doctor in initial examination and monitoring: When the emergency doctor arrived, nurse D quickly assisted the doctor in performing the examination, and at the same time measured the patient's vital signs such as respiratory rate, blood oxygen saturation (SpO2), and blood pressure. Nurse D also closely monitored the patient's breathing.

Initial Treatment Results:

Based on the clinical symptoms and medical history, the doctor confirmed the diagnosis of grade 1 laryngeal dyspnea. The doctor prescribed initial medical treatment for Ms. H, including the use of anti-inflammatory drugs and close monitoring of the patient. Nurse D continued to closely monitor the patient's respiratory status, especially the laryngeal stridor, the level of dyspnea, and any changes in voice, while continuously recording parameters and updating information for the doctor to promptly handle the situation if it worsened.

3. Discussion

The clinical case of patient Tran Thi H is a typical example that highlights the essential and important role of nursing in triage in the ED. In the context of EDs often facing overload and a variety of patients with different priority levels [2], the triage process serves as an important first gateway to ensure that seriously ill or critically ill patients receive timely access to medical care [2-4]. The overall goal of triage is to provide effective, prioritized care and optimize resource utilization [1].

Initially, patient H presented to the ED with symptoms described as “hoarseness and mild dyspnea”, which had lasted for several days. Nurse C, based on the initial assessment that the symptoms were not too acute and in the crowded clinic, directed her to the general examination waiting area of the department. This initial decision, based on the information and context at the time of admission, may be considered appropriate if the patient’s condition remains the same. Triage systems such as the ATS use clinical descriptors to

determine priority, for example, "moderate dyspnea" is assigned to ATS 3 (requiring treatment within 30 minutes) [3, 5, 6], while milder respiratory problems may be assigned to lower levels depending on other factors [3, 6]. The nurse's initial triage based on the patient's presentation and rapid observation is consistent with the principle of triage: quickly determining the level of urgency [3, 4]. However, this case highlights a critically important aspect of the triage process: the sudden change in the patient's condition [1, 3, 4]. After about 20 minutes of waiting, Ms. Hoa noticed that her dyspnea was getting worse, with a "mild whistling sound when taking a deep breath" and an increase in discomfort in her neck. This change required a re-triage process [3, 4]. Nurse D, upon receiving information about the change from the patient, quickly performed a re-assessment.

Analysis of nurse D's decisions and actions in this situation clearly shows the key role of nursing in early recognition of danger signs and timely response:

- Recognizing the change: Instead of ignoring the patient's presentation of increased dyspnea, nurse D paid attention to new signs such as a mild whistling sound and increased hoarseness. This reflects the keen observation skills and ability to listen to the patient, skills that are emphasized in emergency nursing.
- Linking clinical signs and early suspicion: The presence of "mild stridor" along with dyspnea and hoarseness led nurse D to immediately suspect grade 1 laryngeal dyspnea. Stridor is an important clinical sign indicating airway risk and is listed as one of the descriptors for ATS level 2 (imminent danger, requiring treatment within 10 minutes) if severe [3, 5, 6]. The ability to suspect a dangerous condition early based on signs, even if initially mild or atypical, is very important [4]. This shows that the nurse's clinical experience and knowledge play a decisive role [1, 2, 7].
- Urgent decision and action: Based on this suspicion, nurse D made the decision to reclassify the patient's condition as more urgent than initially assessed. The next action was to

urgently notify the emergency physician, a key step to ensure that the patient was assessed by a physician immediately [3, 4]. This followed the principle of prioritizing patients according to their level of urgency [3, 4] and emphasized the need for rapid communication and coordination between nurses and physicians [4]. - Provide support and monitoring: Nurse D reassured the patient and quickly assisted the physician in examining, measuring vital signs (respiratory rate, SpO2, blood pressure) and monitoring breath sounds. Close monitoring of vital signs and respiratory status is an integral part of the triage and re-triage process, especially in patients at risk of deterioration [3, 4]. Nurses also need to have clinical assessment skills related to vital signs [7].

As a result, the doctor confirmed the diagnosis of grade 1 laryngeal dyspnea. This confirmation showed the accuracy of nurse D's initial assessment of the severity of the patient's condition at the time of reassessment. Medical intervention (close monitoring, anti-inflammatory drugs) was initiated promptly thanks to rapid reclassification and coordination. Early intervention when the condition is still at grade 1 is important in preventing further deterioration, as laryngeal dyspnea can quickly become life-threatening [6]. This demonstrates the importance of accurate classification in limiting damage and complications [1, 2].

From this case, valuable lessons can be drawn to strengthen the role of nursing in triaging emergency patients:

- The importance of reclassification: The case of Mrs. H is a stark reminder that the patient's condition does not always stabilize during the waiting period [1, 3, 4]. Procedures should be established and nurses should be encouraged to proactively reassess patients, especially those with prolonged waiting times or unusual changes in symptoms [3, 4]. Patients and their families should also be instructed on how to report changes [4].

- Improve clinical knowledge and skills: Nurses performing triage should be equipped with extensive knowledge of diseases that can develop acutely, including the causes of laryngeal dyspnea and the signs and symptoms at various levels [4]. Developing skills in

observation, listening, and symptom association are crucial to early detection of subtle signs of deterioration [4]. Studies have also shown that nurses need further training in clinical assessment skills, especially in relation to vital signs [7].

- Develop effective screening procedures: Clear screening procedures are needed to guide nurses on the questions to ask and the warning signs to look for, even for symptoms that initially appear to be minor. Although the use of quick scales or checklists may assist, the clinical skills and experience of the nurse remain key in complex or atypical situations [1].

- Enhance interprofessional coordination: Nurse D’s urgent contact with the emergency physician has demonstrated the effectiveness of rapid coordination. It is important to ensure that communication channels between triage nurses and physicians remain open and efficient, allowing for rapid consultation when necessary [4]. NSW Health policy also requires health organisations to support nurses in risk escalation and access to assistance [4].

- Ongoing training and capacity building: The important role of triage nurses requires dedicated and ongoing training [2, 7]. Studies have shown that knowledge and work experience are related to nurses' response times in emergency situations [8]. Health care organizations have a responsibility to ensure that nurses are properly trained, experienced, and supported to perform this role safely and effectively [2, 4].

4. Conclusions

This case study is a typical example that emphasizes the indispensable role of nursing in triage. At the same time, it clearly illustrates the undeniable importance of nursing in recognizing and responding to sudden changes in patient condition. The ability to recognize clinical signs, predict dangerous conditions early, and act quickly in coordination with physicians are vital factors that go beyond the initial task of triage. Strengthening the knowledge, skills, and support processes for triage nurses is necessary to improve patient safety and the efficiency of healthcare facilities.

References

1. Yancey, C.C. and M.C. O'Rourke, *Emergency department triage.* 2020.
2. Qureshi, N., *Triage systems: a review of the literature with reference to Saudi Arabia.* Eastern Mediterranean Health Journal, 2010. **16**(6).
3. Medicine, A.C.f.E., *Guidelines on the implementation of the Australasian triage scale in emergency departments.* G24, 2000.
4. *Triage of Patients in NSW Health Emergency Departments, Patient Matters Manual for Public Health Organisations, 2024*
5. Mirhaghi, A. and M. Ebrahimi, *The Australasian triage scale level 5 criteria may need to be revised.* Emergency, 2017. **5**(1): p. e50.
6. *Australasian College for Emergency Medicine. Guidelines on the Implementation of the Australasian Triage Scale in Emergency Departments. ACEM, 2023*
7. Thawley, A., C. Aggar, and N. Williams, *The educational needs of triage nurses.* Health Education in Practice: Journal of Research for Professional Learning, 2020. **3**(1): p. 26-38.
8. Sumbara, S., F. Fadli, and S. Safruddin, *Factors Analysis Related to the Response TIME of Nursing Services Based on the ATS II Category in the Emergency Installation.* KnE Life Sciences, 2021: p. 75-82.