

Role and Competencies of Emergency Nurses in Triage Assessment for Patients in Emergencies

บทบาทและสมรรถนะของพยาบาลอุบัติเหตุและฉุกเฉินใน การประเมินคัดแยกผู้ป่วยที่มีภาวะฉุกเฉิน

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Abstract

The effective and accurate emergency triage and appropriate care are essential factors to reduce the complications and death rates among the patients suffering medical emergencies. An accurate and rapid triage plays a significant role of emergency nurses to provide appropriate care in each emergency, and to distance increases every patient in a timely manner. This article aims to determine the roles and competencies of the emergency nurses. The roles of emergency nurses are as follows: code nurses; triage nurses; disaster nurses; critical care nurses, transport personnel nurses; pediatric and geriatric emergency nurse; hare nurses; and military nurses. In terms of the competencies of emergency nurses, they are as follows: Direct care skills; Consultancy skills; Leadership skills, Collaboration skills, Coaching skills; Research skills, and Ethics. The most important competency of an emergency nurse is the ability to perform a precise and fast triage for the emergency patients. The emergency nurses must be able to prioritize and categorize the patients' conditions such as who needs priority treatment or who should wait. Therefore, this should improve the quality of the emergency care, decrease risks from complications and disabilities, and reduce death rates. In addition, this will increase patients' and family's satisfaction as well as reduce the cost of medical care.

Keyword: triage, emergency care, role of emergency nurse, competency of emergency nurse

บทคัดย่อ

การจัดลำดับการช่วยเหลือดูแลตามลำดับความเร่งด่วนที่มีประสิทธิภาพและถูกต้อง เป็นปัจจัยสำคัญที่ลดภาวะแทรกซ้อน อันตรายที่คุกคามชีวิต และลดอัตราการตายในผู้ป่วยที่มีการเจ็บป่วยฉุกเฉินได้ โดยความถูกต้อง แม่นยำของการคัดแยกผู้ป่วยเป็นบทบาทที่สำคัญสำหรับพยาบาลที่ปฏิบัติหน้าที่ในแผนกอุบัติเหตุและฉุกเฉิน บทความนี้จึงมีเป้าหมายเพื่อนำเสนอบทบาทและสมรรถนะที่สำคัญและจำเป็นของพยาบาลอุบัติเหตุและฉุกเฉิน ซึ่งมีบทบาทต่าง ๆ ดังนี้ การให้การพยาบาลผู้ป่วยฉุกเฉิน การช่วยฟื้นคืนชีพขั้นสูง การคัดแยกผู้ป่วยตามลำดับความรุนแรง การพยาบาลสาธรรณภัย การส่งต่อผู้ป่วยวิกฤต การพยาบาลผู้ป่วยเด็กและผู้สูงอายุ การบริหารจัดการในภาวะเร่งด่วน และการพยาบาลผู้ป่วยภาคสนาม หรือเมื่อเกิดภาวะสงคราม โดยสมรรถนะที่พยาบาลอุบัติเหตุและฉุกเฉินจำเป็นต้องมี คือ การให้การพยาบาลที่ถูกต้อง การเป็นที่ปรึกษา มีความเป็นผู้นำ เป็นผู้ประสานงาน เป็นผู้สอน เป็นผู้ที่ศึกษาค้นคว้าวิจัยพัฒนา และเป็นตัวอย่างของผู้มีจริยธรรมทางวิชาชีพ ซึ่งบทบาทพยาบาลในคัดแยกผู้ป่วยฉุกเฉินเป็นบทบาทสำคัญ พยาบาลจึงต้องมีสมรรถนะหรือความสามารถคัดแยกผู้ป่วยฉุกเฉินรุนแรงได้อย่างรวดเร็วและถูกต้องที่จะทำให้ผู้ป่วยฉุกเฉินรุนแรงที่แท้จริงได้รับการรักษาพยาบาลตามความเหมาะสมและรวดเร็ว อันเป็นการลดความเสี่ยงต่อการเกิดภาวะแทรกซ้อน การเกิดความพิการ และการเสียชีวิต จัดเป็นการพัฒนาคุณภาพการรักษาพยาบาลตลอดจนทำให้ผู้รับบริการและญาติมีความพึงพอใจในการดูแลเพิ่มขึ้น รวมทั้งลดค่าใช้จ่ายในการรักษาพยาบาลของประเทศเป็นต้น

คำสำคัญ: การคัดแยกผู้ป่วย, การพยาบาลฉุกเฉิน, บทบาทของพยาบาลอุบัติเหตุและฉุกเฉิน, สมรรถนะของพยาบาลอุบัติเหตุและฉุกเฉิน



Introduction

Nursing is a professional career that responsible to provide care to human beings. Nurses give care, assistance, rehabilitation, prevention and health promotion to individuals, family, and community (Thailand Nursing and Midwifery Council (TNMC), 2018). Therefore, all nursing activities are done to achieve the expectation of quality of health needs among patients and their families. Consequently, nurses must have appropriate knowledge and competencies for handle health problems and patient's discomfort.

Health problems can induce physical, mental, emotional, and social discomfort. The severity of illness varies on variety of factors such as: emergency health problems; trauma; the life-threatening and involves various organs. A sudden

occurrence is no specific time or defined in the incident lists (Emergency Nurse Association (ENA), 2018). The causes of emergency health problems are consisted of bumps, injuries, or/and accidents that are called trauma patients, and some causes by illnesses that may cause by medical or other serious causes, are called non-trauma patients. These emergency patients need immediate care to prevent severe symptoms, complications, and death. (Emergency Nurse Association (ENA), 2018; National Institute of Emergency Medicine (NIEM), 2013; Ponsen, Wachiradilok, Sirisamutr, Dounghipsirikul & Khomnuanroek, 2016; St. Mary's Regional Medical Center, 2020)

Recently, the Emergency room report that the number of emergency cases are increased, more serious illness, and more elderly from

various public disasters each year (Sawanpanyalert, 2020). The proportion of emergency cases reports is different in each province. Some provinces, there have more than 3,000 cases of Emergency reports per 100,000 populations. The Department of Emergency Medical Report found that the incidence of emergency patients is increased every year. From May 2019 to now, the number of emergency patients nearly 2 million people throughout Thailand. (National Institute of Emergency Medicine (NIEM), 2020). From the statistics record of emergency room service in 2016, found that more than 35 million emergency room services in Thailand (times per year with statistics at 458 per thousand populations). This proportion was greater than America, Australia and England, 421, 331 and 412 per thousand population respectively. The higher proportion shown that the Emergency Department is more crowding and also found that 60 percent of those emergency room services were not the emergency illness; 25 percent of the patients were the critical patients or the resuscitative patient (Klaisuban, 2018). This data is congruent with the statistics of Khan Kaen Hospital found that the average number of patients in the emergency room are more than 300 people per day. In 2015, from the total number of the Emergency patients about 112,018 patient who were general patients, non-urgent, and less urgent patients, 10% and 25.3% respectively. (Accident-Emergency Department Khon Kaen Hospital, 2016). It can be concluded that the number of patients in the emergency room services was increased. In addition, the need for emergency services at all health-related groups is increasing rapidly.

According to the Health Facility Act No. 4 B. E. 2016, nurses are professionals in accordance

with the laws on hospitals. The role of the nurses are at almost every department in the hospital. (Government Gazette, 2016). The Accident and Emergency Department is a specialized department which is responsible for provide emergency services/ care to patient. Emergency nurses should be able to perform screening or triage, assessment, treatment, life-saving, critical health resolution as well as referral and discharge. (Ponsen et al, 2016; St. Mary's Regional Medical Center, 2020). Moreover, Emergency nurses also play significant role in fulfilling legal duties in the department. According to the Emergency Department overcrowding, capable nursing management skills, knowledge, expertise and well performance make positive workplace environment, make the work smoothly and effectively. This article aims to explain the role and competencies of nurses in the accident and emergency department focus on appropriate and effective screen or triage for emergency patients to reduce the overcrowding of the emergency room and able to provide appropriate emergencies care in on time.

Competencies of nurses

Patient sorting or triage is a systematic process. As a clinical decision to allocate a limited amount of medical and nursing resources to those with the most severity of illness. In order to reduce death, disability, serious complications as well as complaints from patients (Buriwong, 2018, Emergency Nurse Association (ENA), 2020). The triage or sorting has existed since ancient times to prioritize and determine the patients who have to help first according to the medical potential available. The triage is used in many situations such as injuries, mass incidents, public disasters and in the Emergency departments in hospitals.

The tools for the triage have been developed continuously to improve the quality, accuracy and quickly. (Wuthisuthimethawee, 2018; Stoppler, 2020).

Fukuda (2016) stated that competence is an ability acquired through experiences and learnings. The competency of nurses is the potential abilities to work effectively under certain circumstances. Vibulwong & Rittiwong (2017) defined the competencies of Emergency nurses as: knowledge and quality

of services, emergency nursing performances, screening and evaluation, advanced cardiac life support skill, discharge planning and referral services, and attitude toward work and research.

The Thailand Nurses and Midwifery Council (2009) released the core competencies of professional nurses to develop the potential of nurses for work efficiently. There are 8 general competencies of general professional nurses (TNMC, 2018) as follows:

Table 1
The General Nurses Competency (TNMC, 2018)

1	Ethics, code of ethics and law: Nurses should practice nursing under the laws, Consider the benefits of service recipients, and care with responsibility and compassion.
2	Nursing and Midwifery Practice: Nurses must have knowledge and ability in providing nursing, nursing practice, and advise follow the nursing process.
3	Professional Brands: Nurses must be good role models for nursing
4	Leadership in quality management and development: Nurses work as a team, leadership, and cost-effectiveness in resources utilization
5	Academic and research: Nurses need to exchange and transfer knowledge and academic cooperation to improve nursing quality
6	In communication and relationships: Nurses must be good, effective communication, and friendly
7	Information Technology: Nurses must have knowledge of health nursing informatic systems, and various technologies for nursing development
8	Social aspect: Nurses have to understanding of social change; participate in formulate policies and comply with health policies by adhering to the principles of sufficiency economy

Note. Adapted from *Announcement of the Nursing Council Regarding the core competencies of graduates Undergraduate, Master’s, Doctorate Degree in Nursing Advanced Nursing Training Course Diploma level and receive a certificate/approval letter showing expertise in nursing and midwifery. And specialized nursing in the field of nursing*, by Thailand Nursing and Midwifery Council (TNMC), 2018, retrieved from <https://www.tnmc.or.th/images/userfiles/files/004.pdf>

The Thailand Nursing and Midwifery Council guideline (2018), the professional nurses must have competency at the basic performance level. However, the job descriptions or characteristics

of each position or departments is different. It depends on the goals of the department or the organization. The Accident and Emergency Department, that provides services to those who

suffered from accidents and/or critical illnesses. To services for trauma or emergency patients, who need urgent or fast track care, such as AMI fast track patients, stroke fast track, burns patients, disaster patients and other emergencies or life-threatening patients (Emergency Nurse Association (ENA), 2018). Therefore, nurses in the Accident and Emergency Department must have knowledge, good skills to provide accurate and fast triage as well as appropriate care in the urgent situations.

The Roles of Emergency nurses The role of the nurses in the Emergency Department is a care provider to provide care for emergency patients, work effectively, be calm, be aware of changed, stressed, and pressured situations. Nurses must have confidence in uncertain situations, good

decision, flexibility in difficult situations (Brook, 2018; Hamstra, 2018). The Emergency Nurse Association (Emergency Nurse Association (ENA), 2020) was founded by the emergency nurses around the world, has released the roles of the emergency nurses as follows: Table 2

The competencies of the Emergency Nurses are the ability acquired through work-experiences and learnings. The Emergency nurses have the potential abilities to work effectively under certain circumstances. (Vibulwong & Rittiwong, 2017; Emergency Nurses Association (ENA), 2011; Ghanbari, Hasandoost, Lyili, Khomeiran & Momeni, 2017). Therefore, the core competencies are as the followings table 3

Table 2

The Role of the Emergency Nurses

Item	Definition
1	Emergency or Trauma nurse: A nurse who provides care to the injured patients and the patient who get accident. The nurses must be special trained more than 2 year in the Trauma Center.
2	Code nurse: A nurse who has skills in resuscitation, able to care for critical ill, apnea patients, cardiac arrest patients, and member of Advance Cardiac Life Support team--ACLS. The nurses must have at least 1-2 years of work experiences.
3	Triage nurse: A nurse who performs effective, accurate, and fast screen the patients appropriate and right level for urgent treatment.
4	Disaster Response or Emergency Preparedness: A nurse who responds to disasters and readiness for both natural disasters and man-made dangers
5	Disaster Response or Emergency Preparedness: A nurses who respond to disasters and readiness for both natural disasters and man-made dangers
6	Pediatric Emergency Nurse and Geriatric Emergency Nurse: The nurses who expertise in child care and expertise in care for the elderly.
7	Charge Nurse: A nurse who responsible for managing, coordinating, and being a leader and decision making
8	Military Nurse: A nurse who has skills in caring for patients in a field hospital, field management and military camp.

Table 3

The Competency of Emergency Nurses

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1. Direct care: Ability to provide emergency nursing care to care patient and Family; handle health problems. The nurse must be able to perform as the following:
 - 1.1 Sorting or triage: to assess the patient with accuracy and appropriate to physical and psychological response on time
 - 1.2 Nursing practice to safe patient's life: Advance Cardiac Life Support--ACLS for patient.
 - 1.3 Problem assessment and planning: nurse be able to plan appropriate care for patients and family
 - 1.4 Use of knowledge, and skills: to assessment, diagnosis and plan throughout assessment the changes that might happen among emergency patients.
 - 1.5 Have skills to manage fragile problems, social and cultural differences in crisis.
 - 1.6 Facilitation and coordination in Referral
 2. Consultation: Ability to give advice to patients, family and staff. The nurse must be able to do the following:
 - 2.1 Facilitate and provide a source or a place: to provide consultation by professional nurses throughout the multidisciplinary for patients and family
 - 2.2 Giving advice, sharing knowledge, and suggesting knowledge from research and empirical evidence to colleagues.
 3. Systems leadership: the ability to handle problems, Deal with things that have changed to promote positive work environment. The nurse must be able to do the following
 - 3.1 Have good contact and coordination
 - 3.2 Have the ability to assess problems, prevention of risks and dangers from predictions.
 - 3.3 Nurses should be a role model and a leader in the development of guidelines for emergency nursing care.
 - 3.4 Analyze problems, factors, resources related to work, and to create a guideline to improve the quality of care.
 - 3.5 Participate in management, drills and disaster prevention plan.
 4. Collaboration between multidisciplinary careers: to joint plan for solve problems, agencies development and improve the system. The nurse must be able to do the following:
 - 4.1 Have good skills in team work to jo solve problems and provide care for patients.
 - 4.2 Be able to coordinate with family and their members to solve problems, to reduce complication risk
 5. Coaching: A nurse who is able to advice, teach patients and family to take good care of themselves. The nurse must be able to do the following:
 - 5.1 A person who be able to advice, teach nursing students, graduate, and trainee to be able to practice important care correctly
 - 5.2 Developing and evaluating patient care tools such as triage, trauma, and disaster.
 - 5.3 Be a leader and developer: to create new guidelines for the changes and/or problems at workplace.
 - 5.4 Be a relaxer: To create a positive workplace environment to reduce work stress.
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Table 3 (Continue)

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6. Research: A nurse who is a perseverance in knowledge on a regular basis, conduct research in the development of the emergency patients nursing, reducing complications in emergency patients, research in work problems and the complexity of the work. The nurses must do as the following:
 7. Ethical Decision-Making: A nurse who serves as Moral Agency and Advocacy to protect the rights of patients, right protection and representing the patients. The nurse must be able to do the following:
 - 7.1 Be a role model for good nurses: In respecting, protecting, and advocating of patient rights.
 - 7.2 Be a promoter: Arrange the environment and spaces for the patients and family to participate in the period before, during and after the resuscitation of the patient.
 - 7.3 Participation in decision making regarding ethical issues in the work problems.
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As the above, the job descriptions/ characteristics of the Emergency department. Therefore, the Emergency Nurses should have duties and roles that are appropriate for the situation, problems, needs of patients and the goals of the department. In which nurses must have appropriate and qualify nursing competencies. This article aims to determine and explore the role of nurse and role the competency of the Emergency nurses. In terms of patient classifications or patient triage. Triage is the specific capability of Emergency nurses to do so with the goals of providing appropriate, accurate, and quick nursing care and treatment to the critical or severe illness among the Emergency patients.

Sorting emergency patients (triage)

Triage is an important competency of the Emergency nurses. The effective and accuracy triage will save the patient's life and reduce risk of complication as well as increase the patient satisfaction. From the Ministry of Public Health (2018), there were 60 percent of patients who came to the Emergency room did not have an

emergency illness. This was a major factor to increase a large number of patients in the emergency room or emergency department. This induces the cause of workload and inadequacy of personnel (both doctors and nurses). This also, increased the mortality rate among the Emergency patients at the first 24 hours admitted. (Ministry of Public Health, 2018). The mortality rate of emergency patients in the first 24 hours from January 2019 to January 2020 in a middle-level hospital or hospital with 30-90 beds or more, the mortality rate of emergency patients was 7.06 percent (National Institute Emergency Medicine, 2020). The previous study in the Swiss University Hospital, aimed to determine the effect of triage and mortality rate among emergency patient during 2013-2016, the study finding revealed that a good and effective triage could reduce the mortality rate among emergency patients and hospitals' problems (Heymann, Wicky, Carron & Exadaktylos, 2019).

According to a study on Factors Influencing the Accuracy of Triage by Registered Nurses among Trauma Patients, in 5 Emergency Department in the regional hospitals. The data were collected

from 109 register nurses who performed triage of 1,090 emergency patients. The finding revealed that the Emergency patients were categorized into the accurate triage only 52.4%. The study found 25.5 % of nurses who provide over-triage (more severity) among unconscious trauma patients. However, 15.2 % of nurses who performed under-triage (less severity) among trauma patients (Soontorn, Sitthimongkol, Thosingha & Viwatwongkasem, 2018). This finding is congruence with the study that conducted in United States of America among the Emergency patients admitted in hospitals in 2016. The finding indicated that the severity of the patients was less than realistic, which is associated with the mortality rate of patients (Holst, Perman, Capp, Haukoos & Ginde, 2016). Therefore, the accuracy, effective, and quick triage is the key competency of Emergency Nurses. This has crucial impact on the life and quality of care for the patients. Moreover, this can improve the quality of care and reduce the incorrect prioritize or triage patient correctly has a significant impact on the life and quality of care of patients.

The increasing of the number of emergency patients and mortality rate in Thailand, the Department of Medical Services, Ministry of Public Health decided to develop guidelines for patient triage and the emergency severity index version 4 and developed the “Thai national triage guideline” as a guideline for the triage the emergency patients thorough Thailand. The manual is divided related to the severity of illness into 5 levels and methods of triage (Yuksen, 2020; Wuthisuthimethawee, 2018. Buriwong, 2018) as follows:

The first step is to evaluate the appearance or acuity, as the followings:

Level 1 is a person who will be dying. There are abnormal vital signs and neurological

signs. Require immediate care for save life. Call these groups a critical patient or “resuscitation”.

Level 2 is a patient who needs immediate medical attention from Level 1, with a risk of life-threatening, lethargies, confusion, changes in consciousness, disorientation or pain scores $\geq 7/10$ (severe pain), as well as fast track patients. Call these groups as emergency patients or “emergency”.

The next step is to evaluate by using resources or the nature of treatment in the sorting. The screening person must have experience in the consideration based on the patient’s history taking data, as the following:

Level 3 is a patient with a constant vital sign. There is a need for more than 1 activity assessment or treatment or diagnosis, which is not an appointment or can wait for the next day. Call these groups as patients with moderate illness or “urgency”.

Level 4 is a patient that is similar to Level 3 but has a less complicated illness. And these patients need activities or procedures for assessing problems or treating or finding problems for just one activity. Call these groups patients with less urgency or “less urgent”.

Level 5 is a general patient that no need specific assessment, special treatment or to find the cause of a difficult illness. Call these groups patients without urgency or “non-urgent”.

In addition, the patient sorting process has been assigned a color for clarity in the operations or operations of the health team by requiring emergency patients to use the red symbol. Emergency patients often use the pink, orange, or yellow symbol. In each level of severity of illness, other levels are assigned a different color for each hospital, depending on the suitability. minutes. For levels 3, 4 and 5, the duration of treatment

is different. Different Depending on the nature, problem and potential of the hospital (Yuksen, 2020; Wuthisuthimethawee, 2018. Buriwong, 2018)

The Emergency Nursing Association Announced the position about the characteristics and competencies of triage nurses (Emergency Nurse Association (ENA), 2020) as follows:

1. Be a professional nurse or nurse with at least 1 year of work experience in the Accident and Emergency Department and has been trained in nursing, trauma, pediatric, heart disease.

2. Through training and skills about triage patients.

3. Be a participant in the assessment of the triage validation process; participate in the educational planning, development of better, and more accurate patient screen methods.

4. The emergency department must ensure that the nurses who are responsible for the triage of the patients are given the development of competency. Develop skills in triage suitable and effective for roles, duties, and standards.

5. Emergency nurses must be participants in research on the patient triage process, nursing outcomes for patients as well as the development of emergency nursing care guideline

Moreover, the Department of Medical Services, Ministry of Public Health stated that the screening point for patient screening should be easy-to-reach the location for patients and should be closed to the emergency room, have staff all times. Begin triage by asking questions, surnames, family name, ages, chief complaint, visually evaluated to find life-threatening risks, evaluate vital signs, neurological signs and send patients to receive treatment according to the triage level. Therefore, the qualification of those who responsible to perform the triage of patients

at the screening point (Buriwong, 2018) should have followings:

1. Being knowledgeable, experienced, aware of symptoms, signs of life-threatening or life-threatening conditions.

2. Have a reason for making decisions. Make decisions based on the severity of the patient's life by not using the order of service or the needs of patients.

3. Courageous and decisive decisions while also accepting mistakes after making a decision.

4. Calm down in stress situations and the pressure situation.

5. Have the good skills in communicate with patients and relatives.

6. Be intelligent, able to make decisions and solve problems immediately.

7. Have the ability to coordinate with staff in various departments.

8. Have sacrifice and patience.

It can be concluded that the management of the emergency patients begin with the appropriate selection the levels of severity. The nurse who is responsible for the triage needs to have knowledge and ability. Have working skills which is a specific capability that must be suitable for emergency situations. In addition, she/he should be a good personality, a good characteristic easy to work with others and achieve the organization's goals.

Summary

According to the increasing of number of the Emergency patients and the mortality are rising thorough Thailand. More studies revealed that the effective, accurate, precise, and fast triage

are influenced the mortality and the quality of the Emergency patients. The Ministry of Public Health develop of the reliable and validity tool “Thai National Triage Guideline” as the tool to use in the Emergency department will decrease the problems and the mortality rate among Emergency patients. The triage nurses perform a brief focused assessment and assigned the patient a Triage acuity level, which is a proxy measure of how long that

the patient will be safe for further investigation and treatment. Therefore, the nurses who responsible to triage in the emergency department should be appropriate and certify competencies, knowledge, experiences, skill in triage, effective handle immediate situations which will lead the patients to reach appropriate care and appropriate to the potential hospital in timely manner.



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