

## THE START SORTING SYSTEM AND THE NURSE'S PARTICIPATION IN ITS IMPLEMENTATION

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**Introduction.** This article highlights the problem of organizing the sorting of patients during mass admission to medical institutions and providing emergency medical care. The role of the nurse in conducting triage and providing emergency care at the early hospital stage is within the framework of limited resources. The urgency of working out the response protocol in the event of an emergency.

**The aim of the study** – to determine the role of the nurse in the triage and provision of emergency care at the early hospital stage within the framework of a limited resource. To establish the relevance of the use of the START medical triage system in the practical activities of a nurse. The relevance of working out the response protocol in the event of an emergency among nurses.

**The main part.** The medical triage system START (Simple Triage and Rapid Treatment) is an effective tool for organizing and accelerating the process of correct routing of patients in mass cases and crises when resources are limited and medical needs are high. Medical triage criteria also include signs of primary medical examination. As their professional responsibilities expand, nurses can use the ABCD algorithm to assess the patient's condition. Knowledge of the principles of this medical triage system, the ability to provide emergency medical care, evenly and effectively distribute resources, follow the instructions of the coordinating physician, describe medical documentation, and label the patient's category have become the duties of nurses due to the increasing frequency of emergencies.

**Conclusions.** The START (Simple Triage and Rapid Treatment) triage system is used for prompt and efficient selection of victims during emergencies. The role of the nurse in this process is extremely important. First of all, the nurse must have skills in the application of the START triage technique and an understanding of its basics. During triage, the nurse can quickly assess the condition of each victim, determine the category, and assign the appropriate color tag. Provision of emergency medical care in conditions of limited resources, coordination, and reporting for further organization of medical care are key elements in the formation of nursing competence during triage. Using the principles of medical triage can help optimize treatment and save more lives in emergencies.

**Key words:** medical triage system START; nurse; emergency care; primary examination; limited resource.

## СИСТЕМА МЕДИЧНОГО СОРТУВАННЯ START ТА УЧАСТЬ МЕДСЕСТРИ ПРИ ЇЇ ВИКОНАННІ

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**Вступ.** У цій статті висвітлено проблему організації сортування пацієнтів при масовому прийнятті в медичні заклади та надання екстреної медичної допомоги. Розглянуто роль медсестри при проведенні сортування і наданні невідкладної допомоги на ранньому госпітальному етапі в рамках обмежених ресурсів. Установлено актуальність відпрацювання протоколу реагування в разі виникнення надзвичайної ситуації.

**Мета роботи** – визначити роль медсестри при проведенні сортування і наданні невідкладної допомоги на ранньому госпітальному етапі в рамках обмежених ресурсів, установити актуальність використання системи медичного сортування START у практичній діяльності медсестри, актуальність відпрацювання протоколу реагування в разі виникнення надзвичайної ситуації серед медсестер.

**Основна частина.** Система медичного сортування START (Simple Triage and Rapid Treatment) є ефективним інструментом для організації та прискорення процесу правильної маршрутизації пацієнтів у

масових випадках і кризових ситуаціях, коли ресурси обмежені, а медичні потреби високі. Критерії медичного сортування також включають ознаки первинного медичного огляду. В міру розширення професійних обов'язків медсестра може використовувати алгоритм ABCD для оцінки стану пацієнтів. Знання принципів цієї системи медичного сортування, вміння надавати невідкладну медичну допомогу, рівномірно та ефективно розподіляти ресурси, чітко виконувати вказівки лікаря-координатора, вести медичну документацію і маркувати категорії пацієнтів стали обов'язками медсестри через зростання кількості надзвичайних ситуацій.

**Висновки.** Систему медичного сортування START використовують для оперативного та ефективного відбору постраждалих у надзвичайних ситуаціях. Роль медсестри в цьому процесі є надзвичайно важливою. Передусім вона повинна мати навички застосування даної системи та розуміти її основи. Під час виконання сортування медсестра здатна оперативно оцінити стан кожного постраждалого, визначити категорію та призначити відповідний колірний тег. Надання невідкладної медичної допомоги за умов обмеження ресурсів, координація та звітність для подальшої організації медичної допомоги є ключовими елементами у формуванні медсестринської компетентності під час проведення сортування. Використання принципів медичного сортування може сприяти оптимізації лікування та рятувати більше життів у надзвичайних ситуаціях.

**Ключові слова:** система медичного сортування START; медсестра; невідкладна допомога; первинний огляд; обмежені ресурси.

**Introduction.** The mass admission triage system is a standardized method of rapidly determining the clinical urgency of all incoming patients. At the same time, it helps medical personnel identify and prioritize the seriously ill or injured [1]. The relevance of studying the medical triage system has grown rapidly since the beginning of the full-scale invasion of the Russian Federation into Ukraine. In addition, the global development of the civilization of society, man-made disasters, and emergencies of a socio-political nature oblige medical personnel to be able to respond.

The aim of the study – to determine the role of the nurse in the triage and provision of emergency care at the early hospital stage within the framework of a limited resource. To establish the relevance of the use of the START medical triage system in the practical activities of a nurse. The relevance of working out the response protocol in the event of an emergency among nurses.

**The main part.** Medical triage plays an important role in determining how to allocate limited resources and provide care in order of urgency and severity of the patient's condition. This includes determining who needs immediate help and who can be helped later. Since the modern nurse becomes a full-fledged partner in treatment, she is an integral element in the mass influx of patients [2]. The START (Simple Triage and Rapid Treatment) medical triage system is an effective tool for organizing and accelerating the process of the correct route of patients in conditions of mass cases or crises, where resources are limited and the need

for medical assistance is great. According to the rules of this system, patients are quickly evaluated and divided into four main categories to determine and provide priority medical care. The criteria for medical sorting include the signs of the primary examination. In connection with the expansion of professional powers, a nurse can assess the patient's condition according to the ABCD algorithm.

A (Airway) – airway patency. If the patient has a compromised airway or is impassable (unconscious but breathing), the nurse ensures patency manually or with specialized devices, as needed and based on available resources.

B (Breathing) – breathing. The nurse determines the presence/absence of breathing. If breathing is present, it is necessary to find out the rate of breathing.

C (Circulation) – blood circulation. If the patient's breathing rate is normal, the nurse determines the presence of a pulse on the peripheral artery or capillary filling. When changes in these indicators are detected, control external bleeding and, if necessary, stop it.

D (Disability) – neurological status. If the condition of the patient's periphery is stable (a peripheral pulse or capillary is filling for less than two seconds), it is worth assessing the state of consciousness, and asking to perform a simple task. The next stage in the START medical triage system will be the distribution of patients according to color markings, determined by the order of the Cabinet of Ministers of Ukraine of May 7, 2009 No. 563. In Table the main criteria of the victims according to the received categories are described.

**Table. The main categories of victims according to the START medical triage system**

Category	Color	The condition of the victim
I	red	An immediate threat to life, but the condition is treatable. Requires immediate hospitalization and medical assistance
II	yellow	Serious injuries are possible, but the victim's condition is stable, which allows you to wait for medical assistance in the second instance
III	green	Minor injuries where the patient has a longer period to wait for medical attention
IV	black	Incompatible with life damage or death. Consider hospitalization as a second option if the patient remains alive by the end of triage

Sorting according to this system is carried out according to the main categories:

Green (minimum severity): Patients with minor injuries who can wait for medical attention.

Yellow (moderate): Patients with moderate injuries who can be saved but are not emergencies.

Red (severe severity): Patients with serious injuries requiring immediate medical attention and hospitalization.

Black (not compatible with life): Patients for whom care is ineffective or impossible.

In the process of providing medical care and treatment, the sorting category may change. After determining the patient's category, the nurse makes the appropriate marking according to the color criterion, as well as the detected vital signs.

Most often, during triage, the nurse interacts with the doctor. Her responsibilities include preparing equipment for stabilizing the patient's condition, supplying oxygen, including collecting everything necessary to provide emergency medical care in the red zone. The nurse performs all the necessary manipulations during triage and helps transfer the victim to the ICU (Department of Anesthesiology and Intensive Care), the operating room, or another triage area (for example, the yellow zone) [3]. She can also assist in filling out medical documentation during triage according to the START system, and tag patients with triage bracelets.

When conducting secondary triage, the purpose of which is an in-depth examination of patients, the nurse

interacts similarly with the coordinator (doctor). To stabilize the patient's condition, she needs to prepare means for controlling bleeding, equipment for ensuring the patency of the respiratory tract devices for artificial lung ventilation, oxygen, a decompression kit, infusion solutions of the required temperature, and means for monitoring basic vital signs. Communication skills are extremely important during triage. The stress factor, the minimization of time in case of an emergency patient, and a large number of victims often distract and have an emotional impact on the medical staff [4]. To evaluate laboratory indicators, the nurse establishes communication with additional staff and also participates in discussing the need to transfer the patient to another area or department.

It is known that nurses are involved not only in the stabilization of patients' condition, and physical examination but also in constantly supporting the patient's emotional state, and showing empathy and care. The nurse must be able to communicate clearly with other members of the medical team, provide the necessary information about the condition of the victims, and manage the process of assistance at the scene [5]. It provides psychological support to victims and their relatives in stressful situations, aimed at reducing panic and maintaining emotional well-being. The nurse's attention is focused on the coordinator's instructions and the answer about the performed manipulation. However, the ability to respond to emergencies in a resource-constrained environment largely depends on the readiness of the nursing staff. Conducting educational and simulation training and understanding the clarity of actions in the event of an emergency is a relevant training plan for nurses.

**Conclusions.** The START triage system (Simple Triage and Rapid Treatment) is used for quick and efficient triage during emergencies. The nurse's participation in this process is critical. First of all, the nurse must be trained in START triage techniques and have an understanding of its principles.

During START triage, the nurse can quickly determine the condition of each casualty, assess life-threatening conditions, and assign appropriate color tags: red for immediate treatment, yellow for second-line care, green for minor injuries, and black for those in who have no signs of life or help will be ineffective. The obtained data can be used to optimize logistics and resource planning for the provision of quality medical care in emergencies. Provision of emergency medical care in conditions of

limited resources, coordination, and reporting for the further organization of medical care are key elements in the formation of nursing competence during triage.

Applying the principles of medical triage can help optimize treatment and outcomes.

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