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A brief overview of the application of triage systems in the emergency department during pandemic period

Pandemi döneminde acil serviste triyaj sistemlerinin uygulanmasına kısa bir bakış

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Dear Editor;

Emergency services are units of health institutions that provide uninterrupted service 24 hours a day, 7 days a week, and are an important door of the health system. It has an important place in people's access to health services. This situation causes the emergency services to be easily accessible and overcrowded with unnecessary use. One of the reasons for the crowds is that it is the first place where patients apply in disasters and epidemics (1).

Triage systems have been developed over time in order to avoid this crowd in the emergency services and to use the emergency services in the most efficient way. Routine circulation is the most important part of patient evaluation in the emergency department. Routine triage aims to evaluate the patient in the fastest way at the time of admission in the emergency services, to determine the treatment priorities of the patients, and thus to use the emergency department capacity in the most efficient way, starting with the most urgent patient (2). Architectural arrangements have been made, such as separating ambulance and outpatient entrances, in order to obtain maximum data in large and modern hospitals (2). According to the policies of health planners, there are also applications where surgical emergencies, pediatric emergencies and internal emergencies have separate entrance doors.

The word triage comes from the French word “trier” meaning to choose, to separate. It is thought that triage practices started during the wars in the Napoleonic era. It was first applied in the medical field by Baron Dominique Jean-Larrey, in the 18th century during the Napoleonic era, to help the seriously injured soldiers return to the battlefields by intervening in the untreated and less injured ones (3). Priority is given to more recoverable patients due to insufficient health resources. Patients are often divided into three groups:

1. Non-urgent: The patient may wait for a long time until he sees a doctor, or he may be referred to primary health care services (green).

2. Urgent: Diagnosis and treatment of the patient in the emergency room is necessary. It should be checked at regular intervals until the diagnosis and treatment is made (yellow).

3. Emergency: The patient should be treated as soon as possible without waiting. Illness or injury to the patient may result in disability or death (red).

The use of triage in emergency services coincides with the end of the 1950s. In the early 1960s, triage systems began to be developed in response to the rapidly increasing emergency services patient population in the USA (1). With the increase in the number of emergency visits, especially in patients with low urgency, triage practices were started in order to give priority care to emergency patients, and they took their place in routine use over time (3).

COVID-19 first reported from Wuhan and it was defined as a pandemic on March 11 due to the incidence of cases in 113 countries, the spread and severity of the virus. On the same date, the first case was reported from our country. During the COVID-19 pandemic, emergency services were the first health unit that patients applied to, and the entrance door of pandemic clinics was emergency services (4). However, there have been unexpected changes in the behavior of societies, and non-pandemic emergency service applications have decreased considerably. Despite this, pre-hospital emergency health services and emergency services have remained inadequate almost all over the world due to COVID-19.

The increasing burden of the pandemic has increased the importance of triage practices in emergency services and pandemic clinics. Researchers have done research on triage

systems (4,5). They showed that these systems, which are based on vital parameters (body temperature, pulse, heart rate, respiration rate, and arterial blood pressure) and can be applied by non-doctor health personnel, can be applied. On the other hand, service treatment protocols and intensive care hospitalization indications were changed due to the fact that the intensive care beds were full, and the number of intensive care beds was limited. Studies were carried out on triage systems within the priority of intensive care (5).

As a result, triage applications that emerged to determine the priority in war surgery are applied in crowded emergency services today. Efforts to use resources effectively during the pandemic period have led to an increase in the importance of triage systems.

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