

Research Article

Setting Priorities During Triage Process of the Sick Patients and Injured Patients at the Emergency Department

Basri Lenjani^{1*}, Arbër Demiri¹, Nexhbedin Karemani¹, Ilaz Bunjaku¹, Besnik Elshani¹

¹Hospital and University Clinical Service of Kosovo- Emergency Clinic, Prishtina, Kosovo

*Corresponding author: Dr. Basri Lenjani, Hospital and University Clinical Service of Kosovo- Emergency Clinic, Prishtina, Kosovo,

Tel: 00 381 385 78 41; Email: basriLenjani@yahoo.com

Received: 06-11-2015

Accepted: 09-29-2015

Published: 11-10-2015

Copyright: © 2015 Basri

Abstract

Introduction

Triage is a central task in an emergency department (ED). In this context, triage is viewed as the rating of patients' clinical urgency.

The aim of the document

Triage aims to ensure that those patients assessed as having the most urgent need are treated before patients with a less urgent need. The main objective of this paper is to analyze the situation, pertinence and efficacy of the ED triage system in Kosovo.

Materials and Methods

This research is a retrospective study, and data are taken from the archives of an Emergency Clinic in cooperation with the statistical office from a one year period of January-December 2014. This research included sick, injured, intoxicated patients, car accidents, and natural disasters in order to evaluate the readiness, preparation, approach, and responsiveness in mass accidents or disasters.

Results

The results show a low level triage system due to the non-existence of a guide. Triage algorithms and protocols show no tendency to decrease mortality, nor increase the chances of survival, due to the lack of a Kosovo State level document. Doctors perform 60% of triage with insufficient knowledge and dedicated algorithms; they use their experience. The triage system in pre-hospital and hospital care for minor incidents is an important process which should be carried out by experienced healthcare professionals that are licensed and trained, but also should be carried out via a tri-level state healthcare document.

Discussion

While operating systems in Europe and the world are conceived as state document protocols, this concept is lacking in Kosovo. Studies show that the healthcare system in Kosovo is lacking in standards, norms, protocols and algorithm triage systems at three levels of the healthcare system. The lack of a state EMS shared triage protocol is a major problem in Kosovo.

Conclusions

Triage is primarily an evaluation of healthcare in a pre-hospital and hospital environment of diseases, injuries, minor incidents, and mass incidents as a crucial process of EMS. Experience taken from EU countries and worldwide would be helpful to assist EMS in Kosovo, which would be used to establish and regulate an official triage system at a state level to be followed by all three levels of healthcare in Kosovo.

Introduction

Triage is an essential function in Emergency Departments (EDs), where many patients may be present simultaneously. Urgency refers to the need for time-critical intervention - it is not synonymous with severity. Patients triaged to lower acuity categories may be safe to wait longer for assessment and treatment but may still require hospital admission. Triage is a process of priority designation which leads to disease classification of sick patients, injured and intoxicated patients, also minor and major disasters based on scale of injury. Triage may result in priority order and priority treatment, priorities, destination and emergency transport [1]. This concept deals with triage as it is to be done in emergency situations, including injured patients treatment in a pre-hospital and hospital environment, as well as their treatment in ER (emergency rooms). [2] However, because of fluctuations in patient numbers, the seriousness of their conditions, and other pressures on hospital resources, these times cannot always be met. In acknowledgement of this, benchmarks are set that indicate the acceptable percentage of patients who will start treatment within the allocated triage time. Having come across the European and worldwide triage systems, we are in a dilemma and have a big question as to which system is more suitable for us. Soon, we are expecting that an official state level document will be created, and will be implemented in all three levels of the healthcare system. . [1,2,3].

Aim

Triage aims to ensure that those patients assessed as having the most urgent need are treated more quickly than those patients with a less urgent need.

Materials and Methods

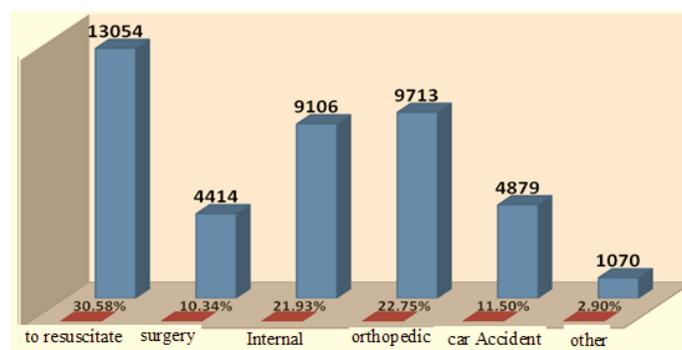
The research is retrospective and the material is taken from the archives of the Emergency Clinic SHSUK for a one year period from January – December 2014. They used sick, injured, intoxicated car accident, and natural disaster patients. The data used for evaluation were based on the type of emergency medical services, assessment of vital signs, knowledge of medical staff, CRP status of vital parameters, a structured questionnaire to assess readiness, preparedness, access, and responsiveness to mass incidents, statistical parameters, structural index, arithmetical average and standard deviation. Statistical tests: X²-test and T-test. Verification of tests was made to 95% confidence level and 99% respectively for $p < 0.01$ and $p < 0.05$.

Results

In Emergency clinic UCCK in Pristina for the period of January-December 2014, emergency medical assistance was requested a total of 42,682 times. There were 17,862 cases of injury and 24,820 patients with different illnesses.

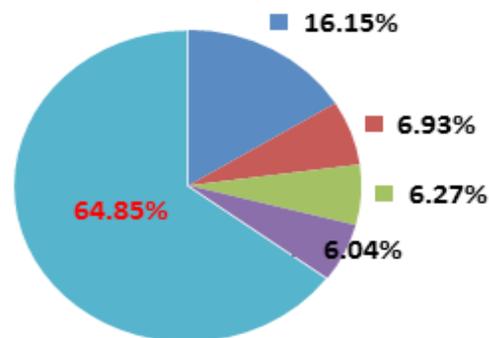
Pathology	Number of cases	% of cases
Injuries	17862	41.18 %
Illnesses	24820	58.82 %
Total	42682	100 %

Table1. In Emergency clinic UCCK in Pristina for year 2013 have sought emergency medical assistance, injured 42,682 which dominate diseases 58.82%, compared to the 41.18% of triaged injuries based on clinical signs and symptoms, in the absence of Protocol of triage in state level in three levels of the health care system.



Graph1.

Other surgical cases were 4414 or 10.34%. Patients with internal diseases were 9106 cases or 21.93%. Orthopedic cases were 9713 cases or 22.75%. Other pathologies or cases were 1070 or 2.90%. They have been triaged with care also has been classified, or they wait for medical care based on standard criteria of triage but they have been out of danger.



Graph2. Pathology of injuries according to the systems; head trauma 2885 cases or 16.15%, neck trauma and spinal cord trauma represented 1193 cases or 6.93%, chest trauma represented 1120 cases or 6.27%, abdominal trauma represented 1080 cases or 6.04% and osteomuscular trauma represented 11584 cases or 64.85%. Triage is based on the priorities of clinical signs and symptoms.

Physical examination	Skin color, activity
Distress level	Severe distress, no distress
Emotional responsiveness	anxious, indifferent
Vital signs	If conditions allow
Physical evaluation	examination

Table2. The valuation is based on the basis of clinical signs, complaints of illness, and vital signs.

Courses which medical staff are required to complete in ER	No. of staff courses completed in ER	% ER courses completed
BLS - ACLS	79	77.45
BTLS, PHTLS, ITLS, ATLS	23	22.55
Total	102	100.0%

Table3. Number of medical staff members working in ED and have finished courses BLS – ACLS are 79 of medical staff or 77.45% and medical staff which have finished courses like BTLS, PHTLS, ITLS, ATLS are less engaged with only 23 or 22.55% of medical staff educated and trained.

Medical Actions	No. of staff which are competent for medical actions	
	No of staff in EMS .	%
CPR	45	60
Vital sign monitoring	70	93
Homeostasis	57	76
Immobilization	21	28
Triage	45	60
Other	20	27

Table 6. ED medical staff possess good medical actions but are arranged in the ED related services. ED medical staff; CPR 45 or 60%, monitor vital signs, 70 or 93%, homeostasis 57 or 76% 21 or 28% immobilization, triage 45 or 60% and other actions 20 or 27%.

ED medical staff that do not possess sufficient knowledge and triage guide algorithm, use their experience, which does not correspond with a standardized triage system. Triage is performed on the basis of clinical criteria, which is lacking a systematic approach to triage using algorithms and protocols. Despite the lack of a triage algorithm guide, Doctors perform triage and there are good results from this, but to guarantee uniformity and more standardization, we need an official document at the tri-level emergency medical system. EMS in Kosovo is making attempts to organize its triage at the state level in close cooperation with European triage standards and will strive to integrate these components which are crucial for EMS.

Discussion

Studies show that the health care system in Kosovo is lack-

ing in standards, norms, protocols and algorithms of triage system at all three levels of the healthcare system at the state level.

The non-existence of this state level document presents a major problem in EMS. In Kosovo, triage for primary, secondary and tertiary levels of sick and injured patients is performed without triage protocols and algorithms, because of the absence of official state level documents [4]. Triage operating systems in Europe and the World are conceived as a document in the state. Since this document is lacking in Kosovo, we are faced with a big dilemma regarding which system is most suitable for Kosovo. What needs to be done, in the near future is to develop drafted guidelines, algorithms and triage protocols aimed at reducing mortality and increasing survival. [4-8].

While education guidelines and algorithms have been shown to reduce mortality, the change of the system of triage is left in large discrepancies in the assessment of triage arising from the diversity of factors determining the emergency of any sick or injured individual. Which system will be incorporated in EMS of Kosovo remains to be seen in the future. We need to find a suitable and reasonable model by national and international experts that will develop and implement EMS in Kosovo, which will be regulated with an official document at the state level.

Conclusion

Triage is the first evaluation of healthcare in a pre-hospital and hospital environment. Injuries, minor incidents, and mass accidents are crucial points of EMS. Triage is the process of setting priorities and classification of the sick and wounded and is to be performed quickly, safely, and correctly based on the severity of injury and disease. This should be carried out by healthcare professionals who are licensed and trained for all three levels of healthcare in Kosovo. The triage in EMS can result in determining the order and priority of treatment. Triage of the sick, injured, intoxicated patients, and mass incidents does occur; these are the most common chain of events involved. What needs to be done in the near future is to develop and draft guidelines, algorithms and triage protocols aimed at reducing mortality and increasing survival. In conclusion, we hope that the triage system in Kosovo will be quickly regulated and part of the healthcare system in Kosovo with an official document.

Recommendations

- The promotion and strengthening of EMS to develop triage system component in EMS.
- The establishment of protocols, algorithms and guidelines for triage for three levels of medical care in EMS.
- Education and continuous training of emergency staff in pre-hospital and hospital settings, which includes nurses and Doctors for triage courses.
- Require EMS to have basic knowledge of triage procedures and BLS-D courses, PHTLS, BTLS, PHTLS, ITLS,

ATLS care and transport for patients with polytrauma; Categorize triage patients to prioritize treatment.

- The formation of a National Training Center for EMS in order to guarantee high standards and quality of education and training for Doctors and nurses. This area is lacking in Kosovo.
- Certification as well as different degrees of qualification for triage based on national standardized courses that include a written and practical exam.

Literature

1. The promotion and strengthening of EMS to develop triage system component in EMS.
2. Johansen MB, Forberg JL. Nurses' evaluation of a new formalized triage system in the emergency department – a qualitative study. *Dan Med Bull.* 2011, 58(10): A4311–A4315.
3. Oblige EMS to have basic knowledge and basic triage procedures and BLS-D courses, PHTLS BTLS, PHTLS, ITLS, ATLS care and transport for patients with polytrauma; Categorize triage patients to prioritize treatment.
4. Navin M, Sacco W. Science and Evidence-Based Considerations for Fulfilling the SALT Triage Framework. *Disaster Medicine and Public Health Preparedness.* 2010, 4(1): 10-12.
5. Ward S, Murray V. Principles of the pre-hospital management of chemicals incidents. *Prehospital Immediate Care.* [Last accessed on 2010 Jun 19].
6. Wang SW. Review of NASS CDS and CIREN data for mechanism criteria for field triage. National Expert Panel on Field Triage meeting, Las Vegas, Nevada; April 28, 2011.
7. Lerner EB, Shah MN, Swor RA, Cushman JT, Guse CE et al. Comparison of the 1999 and 2006 trauma triage guidelines: where do patients go? *Prehosp Emerg Care.* 2011, 15(1): 12–7.
8. Anderson T, Møller M. Triage-Manual, version 1.8. (January 2012).