
CONFERENCE ABSTRACT**THE ROLE OF ARTIFICIAL INTELLIGENCE IN TRIAGE AT THE EMERGENCY DEPARTMENT**

ICIC20 Virtual Conference – September 2020

Rikardo Protrka¹

1: Croatian Institute of Emergency Medicine, Zagreb, Croatia

New trends of integrating the emergency medicine services with non-medical technology could lead to new solutions that would improve and transform the quality of emergency medical care. In recent years, there has been an increased need for artificial intelligence in various fields, where it is used to simplify complex decision-making. Artificial intelligence is also eminent in the future of patient care and effectiveness, not only at the emergency department, but throughout the health care system. Its task is to create a system that thinks like a human and acts rationally. Emergency patients are a particularly vulnerable group of people who require an individual approach, and recognising various priorities of care in the emergency patient will determine the quality of triage. Despite the knowledge, skills, precision and reliability of the highly educated personnel providing triage, the fact is that they use both objective and subjective assessments in their actions, and these are prone to error. Derogations in determining triage categories could be reduced, and a possible solution is the use of artificial intelligence to support the triage system. Communications between health care institutions, in the sense of the exchange and updating of digital data, would further facilitate the work-up of the emergency patient, and result in faster, better triage decisions. In observing the data collected at the emergency departments, a certain range of derogations in triage decisions is evident. A comparison of data from multiple hospital institutions showed that the frequency of specific triage categories differs. With the connection and optimisation of information systems, it could be assumed that artificial intelligence could provide great benefits in determining triage categories. The system would have access to a greater quantity of data that would then allow for a more satisfactory triage outcome. This would also improve the reaction time to similar or the same measurement procedures when performing algorithmic forecasts of data for determining the triage category. Though there are certain barriers to introducing any novelty, the partnership between human and artificial intelligence in triage is desirable, as together the chance for error is dramatically reduced. Combining artificially produced precision, generated from collected and machine learned data, with the human factor based on emotions, empathy and intuition, are a requirement for more uniform and better care of the emergency patient.