



Emergency department length of stay (ED-LOS) as synonymous with critical and clinical risk

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The use of the emergency department (ED) as the first point of contact for health care has increased during the last two decades. A lot of different kinds of patients, affected by medical and surgical diseases, ranging from chronic to acute rapidly progressing pathologies, are visited everyday by the emergency physician (EP) working in environments with high demand and low control. This leads to a stressing condition for the sanitary personnel known as “burnout”.

In ED, the application of the triage systems allows to classify the admitted patients in levels or colors to ensure a standard and quality of care addressing the clinical needs and that departmental resources are efficiently applied to this end.

ED-LOS is defined as the time interval between a patient’s arrival to the ED till the time the patient leaves the ED. Usually, in literature, the cut-off for long ED-LOS ranges from 4 to 48 h.

In scientific studies, ED-LOS was often used as a proxy of other phenomena not easily measurable like quality of care, crowding or boarding. Processes and practices involving the single patient until the final disposition are the principal determinants of ED-LOS.

Considering the current situation of global overcrowding, the ED can be viewed as a funnel where the demand for health care (inflow) is higher than structural and spatial capacity.

Due to some of the common causes of ED-LOS, such as under-triage, underestimation of different comorbidities and frailty, crowding, the lack of inpatient beds (especially during the COVID-19 pandemic), the reduced staff turnover and retaining, worse outcomes (ranging from reduced quality of

care to mortality) were observed in several studies. Recently, Wessman et al. [1] reported a positive association between ED-LOS and short-term mortality in patients with a lower urgency and not admitted to hospital, mainly among older patients. The authors explain this result as a possible effect of under-triage. It is known that triage systems are critical to the management of ED as they represent effective tools not only for the patient evaluation and monitoring, but also tools of departmental organization and clinical justice.

Variability found in triage systems, variability in emergency nurse learning of the triage process (due to lack of appropriate training and/or working experience) and difficulty (due to the limits of triage tools) in attributing the proper priority code to patients with aspecific or not well self-reported symptoms (i.e. patients with dementia, psychiatric disorders and foreigners) are some of the most important determinants of under-triage. Crowding makes the triage system application more difficult prolonging ED-LOS for all patients admitted to ED with the consequence of unfavourable outcomes. As a result of this, in Italy in the last years, EPs are leaving the ED. Contributing factors such as exhausting work shifts, high job demand vs. lack of resources (i.e. the lack of hospital beds causes long ED stay of patients with workload and loss of target for the EP), lack of career progression, reduced resources devoted to personal life, lead the EP to job dissatisfaction deteriorating work performance and increasing the risk of medical errors [2–4].

This vicious circle is often responsible for depressive symptoms with the result in a low threshold of patient care and poor patient experience. Critical risk, a concept larger than clinical risk, meant as harm to patients likely or no capacity to accept and/or manage incoming sick patients, is a problem not only of the single EP but of the entire hospital organization, the community health services, the interaction between hospital and community health services and the policy.

Contingency, together with long-term planning, is necessary and specifically related to the organization of the

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health systems. Some strategies, for instance, should focus on potential overuse or inappropriate use of EDs for non-emergent care. Many efforts have been made in the past to discourage use of the ED when care might be better provided outside, often by a primary care provider.

Given the lack of consensus in literature on whether certain types of ED visits should be considered emergency or non-emergency visits, a guideline by an expert panel in agreement with the stakeholders could attempt to demarcate a clear distinction between “emergency” and “non-emergency” use of the ED.

Among groups to consider inappropriate there’s that of the “superusers” (individuals with frequent and recurrent visits to the ED) or people who may have complex and ongoing health needs, such as chronic conditions or mental health/ substance use disorder conditions. Trying to identify and provide the types of preventive and ongoing care they need, and therefore prevent them from needing to utilize the ED, represent a demanding challenge.

In the last years, in Italy the public healthcare system, known as Servizio Sanitario Nazionale, which provides universal coverage to citizens and residents largely free of charge, has progressively reduced hospital beds contributing to EDs overcrowding. This reduction, prevalently related to economic issues, cannot fail to take into account the population census of the country. Moreover, policymakers should commit themselves to enforce what is reported in Art. 32 of the Italian Constitution “The Republic safeguards health as a fundamental right of the individual and as a collective interest, and guarantees free medical care to the poor”.

The ED crisis can be solved if all together (health workers, stakeholders, policy and society) recognize that there is a problem and that it is urgent to make every effort to face up the challenge.

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