

consumables (57.41%) are ways to curb overcrowding. 98% agreed that six hourly bed occupancy data from the admitting wards was important to reduce ED overcrowding.

Conclusion: Overcrowding in the ED is perceived to cause staff burn-out and result in poor patient outcomes. Evidence-based interventions may improve overcrowding in EDs.

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Waiting Times in a Tertiary Academic Hospital Emergency Department, Iran

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Study/Objective: This project was aimed to evaluate waiting times in various processes in the ED of an academic hospital in Mashhad, Iran.

Background: Waiting for a physician visit in hospitals is one of the main factors associated with health care quality. Overcrowding is a significant problem in the Emergency Department (ED).

Methods: This cross sectional study was conducted in ED of our academic hospital in Mashhad, Iran. Data was gathered as a checklist. Intervals between triage and first visit, getting nursing care and discharge from ED were the main variables in our study. Data was entered using the SPSS version 16; P-value less than 0.05 was considered as significance level.

Results: In the first 25 days of the study, 1,250 patients were enrolled the study. Of those, 466 patients (37.2%) were triaged in first and second level and 784 (62.8%) were in third or fourth level. Mean duration between triage and first visit was 13.5 ± 7.6 minutes (first and second level of triage) and 16.4 ± 10.1 minutes (third and fourth level). Mean duration for receiving nursing care was 12.1 ± 7.8 minutes (first and second level of triage) and 15.6 ± 9.5 minutes (third and fourth level). There was a negative correlation between number of patients and waiting time for the first visit, in patients were in third and fourth level of triage ($p < 0.001$, $r = 0.654$).

Conclusion: Our finding revealed that the number of ED physicians and nurses were correlated with waiting time for patients. So it seems, the use of strategies to reduce ED waiting time could be satisfying for both patients and staffs.

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Increased Burdens of Emergency Departments -

Organizational Challenges

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Study/Objective: The paper aims to assess Emergency Department (ED) organizational changes that are necessary due to constant increases of patient volume. We reviewed the ways of facilitating ED organization, and specifically the options of applying Lean analysis to optimize ED operations.

Background: The Military Institute of Medicine has one of the largest EDs in Poland, being a part of a multi-profile specialist hospital and regional trauma center for the Warsaw Agglomeration. The increase of the number of patients from 31,554 to 83,530, from 2009 to 2015 (a nationwide trend) was not matched by growth of the number of personnel or ED infrastructure, forcing change in work organization. The annual average of patients referred to the Trauma Center was 691.

Methods: Solutions to optimize ED operations were assessed in terms of the need to adapt to the growing ED burdens, specifically based on the results of application of the Lean analysis and the International Emergency Department Leadership Institute (IEDLI) standards.

Results: During the six years under review, ED's burdens increased by 264.7%, but neither the infrastructure nor the number of personnel grew accordingly, necessitating a search for organizational solutions to keep up with patient flow and ensure patient safety. The number of patients not in life-threatening condition grew from 37% to 48% of ED patients, proving a major challenge. Continuity of operations requires patient flow modelling, triage system modification and efforts to decrease access block. Elements of Lean analysis and IEDLI recommendations were applied to keep safety standards for patients in life-threatening conditions, and Trauma Center patients (only 0.8% of ED patients but creating long-term burden).

Conclusion: The increase of the number of ED patients who have higher expectations and create greater burdens and duties for personnel and ED infrastructure, was not matched by an increase of the number of personnel and ED infrastructure development. Therefore, it is necessary to accept solutions to reduce risk and undesirable effects.

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Risk Recognition: Rationing Emergency Department Care as a Response to Overcrowding

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Study/Objective: The central objective of this research is to examine the relative risks associated with rationing Emergency Department (ED) care. A number of sub-objectives are considered, including: definition and measurement of overcrowding; rationale for managing so-called 'inappropriate' attendees; definitions of primary care patients; range of risks associated with rationing of care; acknowledgment and discussion of ethical issues resulting from these.

Background: Overcrowding and the associated impact on ED flow, patient outcomes and staff recruitment, retention and morale are increasingly recognized and reported. However, a core assumption remains that much of this is due to the presence of inappropriate attendees, or those who could be treated in primary care facilities. Efforts to address this include redirection of patients away from EDs, which effectively introduces rationing of care. This has not been made explicit, nor clearly discussed in the public arena, and the allocation of risk remains unequally distributed.