

## Assessing the Compliance of Emergency Department of Hospital Performance with Clinical Guidelines: A Case Study

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### Abstract

**Background.** Clinical guidelines are texts developed to assist both physicians and patients in deciding on the most appropriate health care. This study evaluated the compliance of emergency performance with clinical guidelines at Sina Medical Training Center in Tabriz.

**Methods.** This descriptive-analytical study was conducted on a case study at Sina Hospital under the supervision of Tabriz University of Medical Sciences. In the first stage, as a research tool, a checklist, approved in terms of validity and reliability, was set up to evaluate clinical guidelines. The second phase of this study was cross-sectional, conducted in a period of one month. All medical records of people referring to level 1 and 2 triage were reviewed based on the checklist and the data were entered into SPSS software, and since the normality of the data was confirmed, descriptive statistics and parametric tests (t-test and ANOVA) were used to analyze the data.

**Results.** Considering the mean ( $1.72 \pm 0.097$ ) in this study, the adherence to clinical guidelines seems to be higher than average. The results also showed that there was no significant relationship between any of the demographic variables and the mean score of total compliance with the guidelines ( $P\text{-value} > 0.05$ ). However, among other variables, a significant relationship was found between the place of the patient's visit as well as the type and time of patient assignment on the one hand and the average score of total compliance with the guidelines ( $P\text{-value} < 0.05$ ). With regard to the results of the regression test, patient's place of visit was the only appropriate variable to predict the average of the total observance of emergency clinical guidelines ( $P\text{-value} < 0.05$ ).

**Conclusion.** Considering the effect of influential variables such as location of the patient's visit, the time and type of patient assignment on the observance of the guidelines and the increasing improvement of the situation of these variables, the average observance of clinical guidelines can be improved further.

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## Extended Abstract

### Background

Clinical guidelines as a product of knowledge aimed at improving the provision of clinical services, not only as professional assistance to physicians and patients but also as a tool for insurance to control the cost and prioritize health care with the aim of planning for Policymakers and the government, are as important as the quality of health care for cost-effectiveness, as well as being an effective tool for avoiding unnecessary treatment and additional costs. Numerous studies have shown that clinical guidelines use evidence-based modeling to provide services and accelerate knowledge translation, improve the quality of services in the health system, avoid unnecessary interventions and reduce health costs, promote cost-effective measures, reduce medical malpractice, reduce differences in views on clinical practice and clinical judgment based on logic, increasing efficiency, and focus on quality control processes, including effective clinical auditing.

### Methods

This descriptive-analytical case study was conducted in Sina Hospital under the supervision of Tabriz University of Medical Sciences. In the first stage, as a research tool, a checklist was prepared based on the guidelines issued by the Ministry of Health for a comprehensive emergency visit and based on common cases referred to this hospital (5 cases), which was approved in terms of validity and reliability. The second phase of this study was cross-sectional conducted within a period of one month. All medical records of people referring to level 1 and 2 triage (examples of comprehensive emergency guides) were reviewed based on a checklist, and quantitative results were entered into SPSS software. Using descriptive statistical methods and related statistical tests (parametric tests), we examined the degree of adherence of physicians working in the emergency department to the standards considered by the Ministry.

### Results

Considering the use of scale (no = 3, relative = 2, yes=1) in determining the degree of adherence to clinical guidelines, the closer the total average is to 1, the degree of

adherence to clinical guidelines is evaluated at the desired level. Therefore, according to the mean ( $1.72 \pm 0.097$ ) in this study, the rate of compliance with clinical guidelines was measured to be above the average. In terms of demographic variables, women made up the largest portion of our sample (75.3%). The highest age range of physicians was 41 to 45 years (63.9%) and they were found to be emergency medicine specialists (66.1%). Also 72.9% of the participants had more than 5 years' work experience. Due to the fact that the significance level in Shapiro-Wilk test was calculated to be more than 0.05, the normality of the data was confirmed. Therefore, parametric tests were used to determine the relationship between the total mean with the variables and the results showed that there was no significant relationship between any of the demographic variables and the mean score of total compliance with the guidelines ( $P\text{-value} > 0.05$ ).

Evaluation of the other variables also showed that, there was a significant relationship between the place of the patient's visit as well as the time and type of patient assignment on the one hand and the average score of total compliance with the guidelines ( $P\text{-value} < 0.05$ ). The results of regression test showed that there was only a statistically significant relationship between the patient's place of visit and the total average of adherence to emergency clinical guidelines. In other words, the patient's place of visit is the only appropriate variable to predict the average total adherence to emergency clinical guidelines ( $P\text{-value} < 0.05$ ).

### Conclusion

The findings of the study showed that the proper implementation of the guides has led to the provision of quality services in this center. Clinical guidelines help physicians and patients make decisions and prepare for the treatment process as well as possible. Also, by creating a framework for them, errors that occur in abnormal or undesirable and unpredictable conditions can be prevented.