

Evaluation of Laboratory Investigations in Accident and Emergency Department, Salmaniya Medical Center

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Objectives: The main objective of this study is to evaluate the proper use of laboratory services in view of test ordering and its relation to the number of patients attending the Accident and Emergency Department as well as the cost-effectiveness of those tests.

Design: A retrospective study of one month duration, included all patients attended the Accident and Emergency Department.

Setting: Accident and Emergency Department, Salmaniya Medical Complex, Kingdom of Bahrain.

Subject: Data obtained from the Health Informaton Directorate of Salmaniya Medical Complex about patients attended the A/E Department during the month of June, 1999 Information about the number of patients attended A/E Department, number of patients in A/E who have been investigated, and the type and number of laboratory investigations, were analysed and compared with data obtained from subsequent three months after implementing the Triage system.

Results: The total number of patients attended during the month of June 1999 was 21026, 24% of them had hematology and biochemistry investigations. The total number of hematology investigations was 11461, a total cost of BD 64883. The total number of biochemistry investigations was 36169 a total cost of BD. 32213. Forty two percent of the investigated patients required admission, after implementing the Triage system about 50% o of laboratory investigations have been eliminated.

Conclusion: Appropriate laboratory test ordering would promote, appropriate utilization of laboratory services. The educational initiatives would provide the clinician with guidelines for optimal laboratory test selection. The availability of cost-efficient tests, and optimal utilization of laboratory based on decision –analysis methodologies, available laboratory test profiles should be restructured to match clinical problems, treatment and patterns of clinical thinking.

This study proved, the reduction of patients attending the accident department, and the number of requested laboratory investigations, which meant saving BD. 276000 per year .