



KERMAN UNIVERSITY
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School of Management and Medical Information

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Title

**Estimating the costs of biochemistry services of private laboratories based on
three methods of activity based costing (ABC) , Henry and Clinical and
Laboratory Standards Institute**

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Abstract

Background and objectives: Tariffs for health and treatment services are one of the important issues of the health sector in terms of the type of services, the amount and method of service coverage, the sending of resources to this sector, the regulation of income and payment of insurance funds, as well as the access and consumption of medical services. Proportion between diagnostic and treatment service tariffs with their actual costs will cause diagnostic and treatment centers (public and private) not to face many economic problems due to lack of financing, private diagnostic and treatment centers will pay the approved tariffs. comply, doctors should not receive separate fees outside of the approved tariffs from the insured, and the insured, especially the vulnerable and low-income groups, should not be deprived of access to services.

One of the important parts in the health system is the clinical laboratory department because they provide different services through different tests. In fact, laboratories play an important role in helping health care providers make clinical decisions for patients, and as a result, 60 to 70 percent of diagnoses are based on test results. On the other hand, considering that in the health and treatment sector, the costs and prices of the services provided in the form of health and treatment service tariffs are a function of the economic conditions of the society, if they are not examined properly and with expert opinion, Due to the high cost of the equipment and supplies used in the laboratory, they can have adverse effects on the continuity of medical services.

methods: The current study is an applied, retrospective and cross-sectional study that will be conducted using three methods of activity-based costing (ABC), CLSI and Henry in the biochemistry department of private laboratories. In this study, we randomly select two laboratories from the cities of Kerman and Ahvaz among the private laboratories that have an average of 70 to 100 clients per day. Also, in this study, all the activities of the laboratory department will not be calculated due to the large volume, and only the number of experiments in the biochemistry department, which is the most frequent among the laboratory departments, will be studied.

Results : The findings indicate that the largest share of costs in laboratories is related to the cost of salaries and consumables. In laboratory number one and two, respectively, the most tests related to creatinine with the number of 17881 and Glucose with the number of 6912 and the least tests were related to lithium with the number of 4 and 2 respectively. In the ABC method, the highest cost is related to the oxalate test and the lowest is related to the keratinin test. The total price of each test in artistic method and CLSI for laboratory number one was equal to 33094 and 28720 rials and for laboratory number two it was equal to 38820 and 31136 rials.

Conclusion: The present study showed that there is a difference between the actual price of the service of the studied unit and the approved tariffs, so it is better to use different methods and accurate calculation of costs, such as activity-based costing, artistic method or Clinical and Laboratory Standards Institute (CLSI) should be used. Considering the high share of personnel costs and consumables, paying special attention to these resources, using them correctly and appropriately, using high-performance equipment and eliminating junk costs can be an effective step towards increasing efficiency and saving money. costs and increasing the profitability of laboratories.

key words: Cost-price, Biochemical department, Laboratory, Activity-based costing, Henry, Institute of Clinical and Laboratory Standards