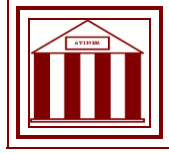


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**A Private Hospital Example for  
the Analysis of Unit Costs in  
Hospital Enterprises**

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## **A Private Hospital Example for the Analysis of Unit Costs in Hospital Enterprises**

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### **Abstract**

As being the leaders of the healthcare providing institutions, hospitals have been considered as state institutions until quite recently, due to the quality of the service they offer. However, recent political, social, and economical changes have caused the private hospitals being mentioned as much as the public hospitals.

It was intended in this study to realize the cost analysis in the hospital enterprise, and to determine the unit costs of the polyclinics, clinics, and special service centers by means of the outcomes of the said analysis.

Having the direct raw material expenses, direct personnel expenses, and general production expenses of a private hospital in Ankara, the capitol of Turkey, defined on the basis of the financial, administrative, and statistical data thereof for the year 2009, the said expenses were thereafter distributed to the current 55 cost centers of the said hospital.

Total costs to have accrued in the cost centers were distributed by way of utilizing such criteria suitable to the other branches they were serving, and then the cost structure of the hospital was thereby defined. Upon having the cost functions of the costs having accrued in the in-patient, ambulatory care, and in the special service centers examined, unit costs were thereby calculated.

As a result of the study, different from the literature, direct raw material expenses were ranked as the highest expense. As a result of the study, it was found out that, 35.68% out of the total hospital expenses was comprised of direct raw material expenses, 32.78% thereof was comprised of general production expenses, and finally 31.54% thereof was found out to comprise direct personnel expenses.

**Keywords:** Unit Cost, Hospital, Cost, Cost Analysis, Private Hospital

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## 1. Introduction

Despite the varying political and economical rules that the countries have adopted, health services have at all times kept their quality as being the public services with special importance. This is so, because the health indicators comprise one of the most important socio-economical indicators of the countries. According to the Constitution of the Republic of Turkey, health services were defined under the concept of a right, and it was further stated that, the state would fulfill this duty by way of utilizing and monitoring the health and social institutions from both the public and private sector. In other words, health services were defined under the constitution among the public services. However, the state was assigned therein with the role of centrally planning, providing, and monitoring the health services. In parallel with the implementation of the components of the transformation program in health, and with that of the general health insurance, state has been fulfilling its duty to provide the public with health services by way of having these services purchased from both public and private health institutions. On the other hand, individuals themselves may also obtain the health services with their own resources either from public or private health institutions. In any case, most of the expenses being spent for the health services are covered by the state, and therefore the health expenditures of the state comprise a significant portion of its budget.

According to Butler (1995), hospitals draw great attention in the field of health economy. Azer (1993) has defined the hospitals as the institutions rendering services to the individuals of the society, performing the expenditure of a significant portion of the national income, and comprising around 2 – 3% of the GNPs of the countries, in view of the expenses being made therein. Such a central role being played by the hospitals within the health system is by no means surprising. Hospitals host the realization of a significant portion of the total health expenditures. According to OECD data (2012), for instance, ratio of the hospital expenditures within the total health expenditures in the year 2009 was 43% in Turkey, 48% in Japan, and 33% in USA.

As being seen in Figure 1, hospitals in all of the OECD countries comprise the largest component in which the health expenditures are realized. 33% of the average annual current health expenditures in the OECD countries is made in the hospitals.

Again in the report of OECD (2012), based on the year of 2009, the high level of hospitals not only within the total current health expenditures, but also within the GNP is mentioned. Accordingly, while USA allocated 5% of its GNP to hospital expenditures in the year 2009, Turkey allocated 2.4% thereof, and Mexico, with the lowest level, allocated 1% of its GNP to hospital expenditures.

### *Cost Analysis in Hospital Enterprises*

Recent increases in both the medical diagnosis methods, and in the number of patients, have in parallel increased the expenditures being made for medical

services. Longer life expectancies with regard to higher mortality rates have significantly increased the costs of public and private health services (Clevert & others, 2007). Primary purposes of hospitals, as being ranked as service enterprises, are to generate profit and sales income, to fulfill their social responsibilities, to maintain their existence, and to grow as well. In order to achieve the aforesaid purposes, hospital managers should plan the optimum use of hospital resources, control the inputs necessary for the services, increase the profits, and therefore keep the costs under control.

Taking the 2009 data from Turkey as basis (TRHM, 2009), it is seen that nearly 70% of the hospitals is being possessed by the public sector, and the remaining nearly 30% of them is possessed by the private sector, and that in the recent years numerous health services have been purchased under agreements from private health institutions. Therefore, upon taking the conditions of the country into consideration, Ildır (2008) emphasizes the necessity of outlining a cost system that may be applicable in the health institutions, determining the unit costs of health services, and that of comparing these costs by and between the hospitals.

It is stated in the financial survey report, dated 2008, of Turkish Stability Institute of the Foundation of Research on Economical Policies (TEPAV) that, “while health expenses reveal an increasing trend over the years, composition of such an increase is not cost-effective”, it was further emphasized that there was a real 40% increase in the health expenditures since 1999, and it was also described therein that, such an increase in the health expenditures were intensifying the saving pressure on the public expenditures, particularly those in education, and that such a real increase in the public health expenditures arose from the increases both in the health expenditures of social security institutions, and in the health card expenditures.

Costs in the hospitals are described as the polyclinic cost in the polyclinics, patient/day cost in the clinics, examination cost in the laboratories, surgical expenses in the operating rooms, etc. Calculation of these costs requires the conduct of cost analysis. Cost analysis is to divide the costs being generated in the service offering of the hospital as per the centers and types of costs, and to analyze them in correlation with the health services being produced. Cost analysis is one of the most critical tools being used in assessing the economy, productivity, and efficiency of a hospital. Hospital managers should make use of the data from cost analysis so as to take healthy decisions.

Cost accounting, according to Secim (1995), generates important information not only for enterprise-based decisions, such as determining the unit prices, and assisting in the functions of planning and decision-taking, but also for countrywide macro decisions. The most important part of the information flow, necessary for ascertaining a countrywide consistent price policy, and for maintaining the coordination between the sub-systems, is comprised of the cost details being obtained from the accountancies of the enterprises. An investment of the state in one of its sub-systems should be decided upon considering the benefit to be obtained institutionally. Such a benefit may only be calculated in case accurate information regarding the costs of the health services is available.

At this point, it should be noted in advance that, the state invests not only in its affiliated institutions, but also performs such arrangements and investments closely concerning the private health institutions, particularly after the latest developments in the health sector. According to Yigittop (2008), as long as the cost details being obtained from these institutions are concrete and reliable, the beneficial feedbacks of the stability, and the investments will be obtained more rapidly, and concretely. This also points to the importance of the cost accounting details to be obtained from the accountancy services within the bodies of private health institutions.

In order to establish cost accounting systems in the hospitals, as being service enterprises, cost analysis studies should be performed beforehand. Cost analysis is one of the most important financial management tools, in which management accounting is used. According to Ak (2008), thanks to these analyses, not only plans and resource allocations can be made so as to increase the efficiency of the health services, but also the managers are enabled to take rational decisions in the pricing of the health services being offered. Without knowing how much the production of a service costs, the sales price thereof may also not be known. In other words, it will therefore not be priced accurately. Under the current economical conditions, opportunities of the hospital managers for increasing the incomes of their hospitals become lesser and lesser. However, the hospital managers in the meantime have the opportunity to offer much more services by way of controlling the costs thereof.

## **Practice**

In this study, medical, administrative, and financial records of the year 2009 of an private hospital (located in Ankara, Turkey, and to be called as hospital hereinafter) of 80 beds with 2 different intensive care units, namely as CVS (Cardiovascular Surgery), and general intensive care, offering polyclinic services in 8 branches and clinic services in 6 branches, are made use of.

First stage of the cost analysis process is to ascertain the outputs to be taken into consideration in determining the unit costs; some of these outputs may be listed as follows: Number of Polyclinics, Number of In-Patients, Number of Patient Days, Number of Surgeries, Number of Laboratory Tests, and Number of Radioscopy and Other Radiologic Services. Unit costs are calculated by way of dividing the total cost, based on the aforesaid outputs, into the number of outputs.

Having the service units in the hospital ascertained beforehand, they were tabulated herein by way of calculating the spaces they cover. Total expenses, including the VAT (Value Added Tax) realized in the operational period of the year 2009, were thereafter distributed to the service centers, being ascertained on the basis of functional segmentation (First distribution). It was intended with this distribution to put forth the direct costs having accrued in each service center of the hospital.



Distribution of the personnel expenses, and medicine and medical material expenses, taken as the basis of the first distribution, was made as follows:

**Personnel Expenses:** While the subject hospital of the study is under the status of a private hospital, employees thereof are employed as being subjected to the provisions of “Labor Law”. Labor costs were calculated herein by way of adding the severance and notice pays, overtime fees, employer’s contribution for SSI (Social Security Institution), employer’s contribution for SSI support, and employer’s contribution for the unemployment insurance to the gross wages of the employees. In order to determine how much labor was spent by the nurses and other personnel in the subject hospital hereof per each patient, the number of employees per each floor was determined beforehand. Personnel expenses were thereafter calculated in a way that at first the number of the patient days of the in-patients in the floors were determined, total wages were divided into the total patient day, and upon determining the wage per each patient day, it was then multiplied by the number of total patient day of the related clinic. Regarding the labor of the physicians, how much time they spent for the polyclinic, clinic, and intensive care patients, and for the operating room, by way of interviewing with the physicians being employed in the related branches, and expense distribution thereof was made accordingly.

**Medicine and Medical Material Expenses:** Expenses of the medicines and medical materials being consumed by the branches throughout a year were extracted from the related records.

Expenses and distribution criteria thereof, comprised under the title of general production expenses of the summary table of first distribution, are shown in Table 1 as follows:

Brief tabulation of 1<sup>st</sup> distribution was shown in details in Table 2. In the 1<sup>st</sup> distribution, expenditures for the year 2009 were comprised of medical material expenses by 28.05%, medicine expenses by 7.63%, direct personnel expenses by 31.54%, and general production expenses by 32.78%.

Having the direct cost of each cost center determined, expenses of auxiliary services and general management, in the quality of auxiliary service centers, were thereafter distributed by means of gradual distribution method to the ambulatory care service centers, in-patient service centers, and auxiliary production expense sites (2<sup>nd</sup> Distribution). During 2<sup>nd</sup> Distribution, auxiliary service and general management expense sites, in the quality of auxiliary service centers, were ranked at the end of 1<sup>st</sup> Distribution in descending order from high to low, and starting from the highest expense center, each expense center was distributed to subsequent service centers by means of the most suitable distribution criterion, and shown in Table 3.

Selection of distribution criteria in the distribution of the expenses of the managerial units in the hospitals is one of the critical fields of difficulty. Due to the fact that the managerial units (Chief Physician’s Office, Directorate-General, Hospital Directorate, etc.) have either direct or indirect impact on all branches of the hospital, it is therefore quite difficult to ascertain the distribution of the services they render per the branches. Therefore it was assumed that the most suitable distribution criterion in the expense distribution

of service centers, such as the directorate-general, would be the percents of the branches within the total distribution, and the distribution thereof was conducted accordingly.

In the 2<sup>nd</sup> and 3<sup>rd</sup> Distribution stages of the research, conversion process was applied so as to calculate the actual unit costs of the operations being performed in certain branches. Essential criteria for the conversion processes are described as follows:

- Expertise opinion (dietician) was applied in the conversion process for the sorts of meals in the cafeteria branch;
- Surgery group maximum points, included in HCA (Health Communiqué of Application) for the year 2008, and became effective in the year 2009, were taken as basis in the conversion process for the surgeries;
- 2008 HCA prices were taken as basis in the conversion process for the examinations of biochemistry, microbiology, hematology laboratories, and those of the radiology branch.

Finally, in order to calculate the unit costs of the ambulatory care service centers, and those of the in-patient care centers, the expenses of the auxiliary production expense sites were distributed to the essential service centers by means of the most suitable distribution criteria (3<sup>rd</sup> Distribution), and were shown in the brief tabulation of 3<sup>rd</sup> Distribution in Table 4. Besides, unit costs were calculated in this stage by way of having the total costs to have accrued at special service centers divided into the outputs of these centers.

A cost function has been established, so as maintain the recalculation of the unit costs according to any change to occur within the cost data thereafter. Accordingly; out of the costs to accrue in the essential service centers, direct personnel expenses were considered as fixed expense, direct material expenses in connection with production were considered as variable expense, and 50% of the general production expenses in connection with production was considered as fixed expense, and remaining 50% thereof as variable expense.

## **Conclusion and Discussion**

In the year 2009, bed occupancy rate of the hospital was realized as 48.43%, turnover rate of the beds as 74.69%, number of polyclinics as 22.495, number of in-patients as 8.187, and number of spent days as 14.140. As being seen in Table 5, expenses of clinics and polyclinics show great differences in themselves. For instance, while patient day cost average hospital-wide amounts to TL 880.54, the same cost rises to TL 1,357.34 in ENT Clinic, and drops to TL 831.32 in CVS Clinic. Similarly, patient day costs of general surgery, orthopedics, and plastic surgery clinics amount higher than the general average.

Differences seen in the costs of in-patient services arise generally from the lower bed occupancy ratio of the hospital, and from the consequential lower

service capacity of the clinics. For instance, CVS clinic, generating the largest portion of the total hospital expenses by 39.61%, is operated with such a low bed occupancy ratio of 55.11%. As a natural consequence thereof, bed and in-patient costs in CVS clinic have accrued at a level higher than the hospital-wide average thereof. Such a circumstance arises from the lower number of in-patients in comparison to the higher actual number of beds allocated to CVS clinic.

As a result of the respective research, expenses for medical materials and medicines appeared with the most substantial amount among the direct material expenses with a percentage by 35.68% thereof. The same ratio was found to be 20.14% from Talakcı's research (2009), 16.3% from Yigit & Agırbas's research (2004), and 26% from Kısakurek's research (2010). Taking patient and cost structure of the hospital into consideration, the volume is seen to accumulate in CVS and cardiology branches. It may be suggested that, the quantity and cost of the medical materials being used in these branches may make the cost structure of the hospital different from that of the other general hospitals. It may further be suggested that, disuse of inventory valuation methods in the surveyed hospital, as well as the purchase of the said materials therein only when needed due to its small scale might have caused the direct material expenses of the hospital amount higher in comparison to other studies. Cost-cutting effects of these expenses may be worked out by way of having the purchase, stockpiling, and tracking systems of these expenses reassessed.

Second largest expenditure item is comprised of the general production expenses by 32.78%. The same ratio was found to be 28.27% from Talakcı's research (2009), 25.7% from Yigit & Agırbas's research (2004), and 22% from Kısakurek's research (2010). Hospital's provision of the services (sanitation, catering, security, laboratory and screening, laundry, legal expenses, etc.), which the other surveyed hospitals produce within their own bodies, through outsourcing may be suggested as the cause of higher general production expenses of the hospital than those being found out from other studies. Making detailed information available within the hospital regarding the input and utilization of the general production expenses, comprised of a wide range of expenses, as well as researching the means of disposition thereon, and reflection thereof on the costs may be beneficial.

Third largest expenditure item was found to be the direct personnel expenses by 31.54%. Comparing this expenditure item of the surveyed private hospital respectively with the surveys within the literature conducted on the public hospitals, the following results are attained: Share of the direct personnel expenses within the total hospital expenditures was found as 58% in Yigit & Agırbas' survey (2004), as 52% in Kısakurek's survey (2010), as 54.09% in the survey (2010) by Esatoglu *et al* in Ibni Sina Hospital, and as 74.7% in Karasioglu & Cam's survey (2004). Direct personnel expenses, having been ranked within the literature with the highest cost ratios, are ranked herein with the lowest cost ratio. This might have been so, due to the decisions having been taken by the hospital in terms of personnel wage policies, due to the larger amount that should have been allocated by the hospital for other expenditure

items (direct raw material and general production expenses). It may further be suggested that, the personnel and personnel wage policies of the surveyed hospital might have affected the said ratio, arising from its status of being a private hospital.

Comparing the prices, determined by SSI, as being the refunding institute of Turkish state, with the unit costs of the hospital, while unit costs of microbiology, hematology, and biochemistry examinations were ranked to be higher than HCA prices, Echo-Effort examination and surgery costs were ranked to be lower than HCA prices.

Cost of 1 × angiography was found as \$ 97.16 from the traditionally conducted cost analysis within Esmeray's (2006) survey at a private hospital in the year 2005. However cost of 1 × angiography was found as \$ 340.29 in the year 2009 from the hospital where this survey was conducted. Such 300% of increase in the costs is quite high despite the 4 years between the implementations. Medical material expense by 74.64% stands out among the expenditures of the angiography branch.

It was found out from Gaynor & Anderson's (1991) study, dated 1983 – 1987, under the title of “calculation of one vacant hospital bed by means of cost function model”, that nearly 18% of the total hospital expenditures is comprised by vacant beds, and that the average cost of one vacant hospital bed was amounting to \$ 38. Taking the fact that the surveyed hospital was being operated by an occupancy rate of 48.43% into consideration, it may be said that idle capacity creates a significant cost element.

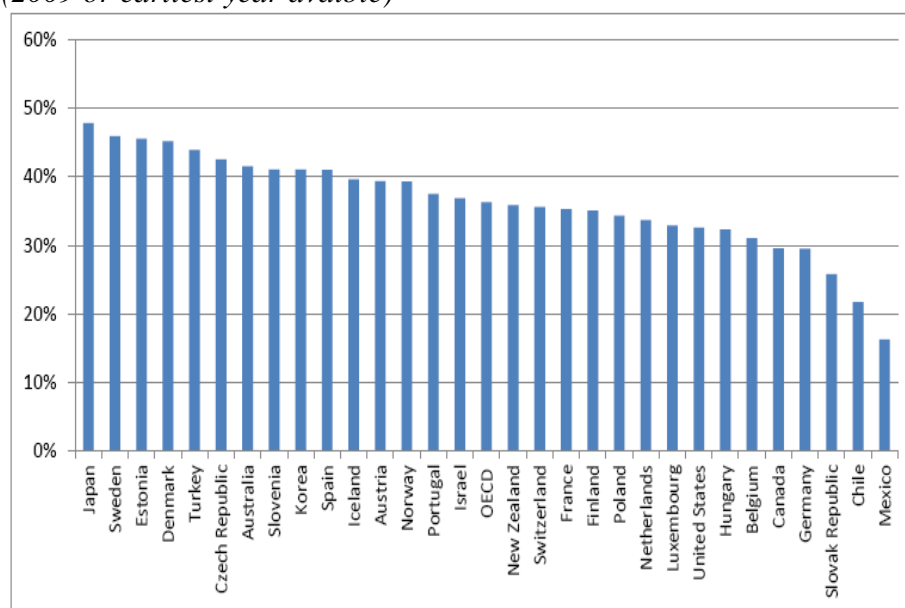
By means of the conducted cost analysis study, it is seen that hospital-wide unit costs show substantial differences on the basis of polyclinics and clinics. Hospital-wide patient day cost accrued as TL 880.54 / patient day, bed cost accrued as TL 155,645.56 / bed, in-patient cost accrued as TL 2,083.96 / in-patient, polyclinic cost accrued as TL 197.01 / polyclinic. In view of such differences between the costs, the hospital should better undergo a restructuring process. Such a restructuring process may include the seek for the ways to increase the number and diversity of the patients, review of the inventory methods, and reducing the diversity of the managerial levels allocated to these branches within the hospital.

Conduct of cost analysis studies in both private, and public sectors would serve for the public's interests. Because the state acts as the biggest service purchaser of both public and private sectors. Determination of prices in an environment where the hospital costs are well-known, conduct of plans with scarce resources, possessing a national data source and vision in financing the health services may altogether serve for the adoption of more rational decisions.

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**Figure 1.** Spending on hospitals as a proportion of current health expenditure (2009 or earliest year available)



**Table 1.** General Production Expenditures (GPE) and Keys of Distribution

Expenditure Types	Keys of Distribution
General Consumables	Consumptions of the Branches
Electricity	According to expertise view, 50% of the consumption thereof is per m <sup>2</sup> , and the remaining 50% per the excess consumptions
Water	m <sup>2</sup>
Heating	m <sup>2</sup>
Membership, Subscription Fee, and Donations	Charged on the directorate-general to be distributed in the 2 <sup>nd</sup> distribution.
Communication	As per the internet, mail, and telephone invoices appertained to the branches
Maintenance & Repair	As per the maintenance & repair invoices appertained to the branches
Building Lease	m <sup>2</sup>
Medical Wastes	Due to the lack of respective records, exemplification was made from 10 days of observation
Medical Gas	Number of patient days
Fixture Depreciation	The fixture depreciation records were extracted, and arranged in accordance with the Reassessment Ratios of the Ministry of Finance
Clothing	While managerial expenses were charged on the directorate-general, remaining expenses were charged on the related branches as uniform expenses as per the number of the medical personnel thereof
Promotion	Charged on the related branches as per the respective invoices
Purchase of Legal Services	Number of the lawsuits, having been brought against throughout the year, was extracted as per the branches, and they were charged on the respective branches.
Purchase of Radiologic Services	Invoices, having been paid to the external centers, were added up, and were charged on the respective branches by way of dividing them into the number of requests.

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Purchase of Laboratory Services	Invoices, having been paid to the external centers, were added up, and were charged on the respective branches by way of dividing them into the number of requests.
Sanitation	m <sup>2</sup>
Laundry	Charged on the laundry depot branch to be distributed in the 2 <sup>nd</sup> distribution.
Catering	Charged on the cafeteria branch to be distributed in the 2 <sup>nd</sup> distribution.
Security	Total number of patients in the polyclinics and clinics
Tax, Duty, Fee, and Insurance	Charged on the parking lot and directorate-general branches as per their affiliated branches

**Table 2. Brief Tabulation of 1<sup>st</sup> Distribution**

SITES OF EXPENSE		GENERAL TOTAL (TL)	%	Medical Materials (TL)	Medicines (TL)	Direct Personnel Expenses (TL)	GPE (TL)
<b>1<sup>ST</sup> DISTRIBUTION TOTAL</b>		<b>16.884.575,10</b>		<b>4.736.276,36</b>	<b>1.287.468,0</b>	<b>5.324.721,59</b>	<b>5.536.109,15</b>
<b>NO</b>	<b>%</b>		<b>100</b>	<b>28.05</b>	<b>7.63</b>	<b>31.54</b>	<b>32.78</b>
1	Emergency Polyclinic	236.771,09	1.40	12.256,13	26.512,23	126.567,42	71.435,31
2	General Surgical Poly.	104.788,23	0.62	2.212,58	0,00	17.855,62	84.720,03
3	General Surgical Clinic	494.851,22	2.93	86.685,26	98.612,35	108.107,48	201.446,13
4	ENT Polyclinic	42.307,66	0.25	2.516,23	0,00	18.302,87	21.488,56
5	ENT Clinic	65.601,27	0.39	23.256,19	7.856,23	23.656,90	10.831,95
6	Internal Diseases Polyclinic	187.444,42	1.11	62.323,12	0,00	60.439,04	64.682,26
7	Cardiology Polyclinic	267.838,69	1.59	3.612,24	0,00	109.343,57	154.882,88
8	Cardiology Clinic	1.421.002,47	8.42	548.630,00	136.542,32	367.566,53	368.263,62
9	CVS Polyclinic	389.412,34	2.31	6.312,21	0,00	329.182,36	53.917,77
10	CVS Clinic	2.529.241,80	14.98	652.658,86	462.321,12	751.586,45	662.675,37
11	Neurosurgery Polyclinic	57.112,57	0.34	1.124,52	0,00	36.252,75	19.735,30
12	Orthopedics Polyclinic	174.267,21	1.03	18.124,84	0,00	129.481,19	26.661,18
13	Orthopedics Clinic	393.068,51	2.33	149.388,40	26.700,80	164.863,92	52.115,39
14	Plastic Surgery Clinic	37.634,98	0.22	2.658,92	8.988,70	22.256,04	3.731,32
<b>AUXILIARY PRODUCTION EXPENSE SITES</b>							
15	Radiology	197.612,56	1.17	38.124,12	0,00	62.933,33	96.555,11
16	Card. Lab. (Echo-Effort)	142.506,34	0.84	24.612,80	1.258,65	39.959,55	76.675,34
17	Angiography	1.884.568,40	11.16	1.406.586,32	6.218,24	330.526,46	141.237,38
18	Laboratory	898.084,32	5.32	633.120,00	0,00	159.068,20	105.896,12
19	CVS Interim Intensive Care	635.108,22	3.76	229.372,93	203.401,28	128.021,35	74.312,66
20	Operating Room	1.338.992,30	7.93	468.981,23	62.557,84	552.367,38	255.085,85
21	General Intensive Care	991.654,82	5.87	242.524,12	246.498,24	363.767,70	138.864,76
22	Sterilization	283.549,13	1.68	121.195,34	0,00	85.112,10	77.241,69
23	Drugstore	53.700,85	0.32	0,00	0,00	37.053,80	16.647,05
<b>AUXILIARY SERVICE EXPENSE SITES</b>							
24	Patient Admission	181.074,34	1.07	0,00	0,00	68.432,05	112.642,29
25	Patient Procedures	330.400,47	1.96	0,00	0,00	293.265,50	37.134,97
26	Corporate Relations	32.492,13	0.19	0,00	0,00	20.476,83	12.015,30
27	Archive	92.100,70	0.55	0,00	0,00	29.263,78	62.836,92
28	Parking Lot	349.085,86	2.07	0,00	0,00	53.643,70	295.442,16
29	Morgue	23.140,68	0.14	0,00	0,00	7.470,74	15.669,94
30	Cafeteria	820.148,49	4.86	0,00	0,00	0,00	820.148,49
31	Dietician	23.471,19	0.14	0,00	0,00	20.699,37	2.771,82
32	Technical Service	186.628,33	1.11	0,00	0,00	115.661,44	70.966,89
33	Transformer	12.634,60	0.07	0,00	0,00	0,00	12.634,60
34	Maintenance & Repair Dep.	5.053,84	0.03	0,00	0,00	0,00	5.053,84
35	Generator	25.174,55	0.15	0,00	0,00	0,00	25.174,55
36	Water Depot	43.330,06	0.26	0,00	0,00	0,00	43.330,06
37	Heating Center	132.883,54	0.79	0,00	0,00	0,00	132.883,54
38	Vent. Cent.-Air-Conditi.	79.085,03	0.47	0,00	0,00	0,00	79.085,03
39	Data Procession	41.913,09	0.25	0,00	0,00	20.476,83	21.436,26
40	Biomedical-Med. Gas	17.011,51	0.10	0,00	0,00	15.116,32	1.895,19
41	Laundry Depot-Dist.	170.506,45	1.01	0,00	0,00	10.767,12	159.739,33
42	Nurses' Lodging	106.569,88	0.63	0,00	0,00	0,00	106.569,88
<b>GENERAL MANAGEMENT EXPENSE SITES</b>							
43	Chairman of the Board of	284.424,25	1.68	0,00	0,00	78.213,18	206.211,07

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	Directors						
44	Directorate-General	362.531,29	2.15	0,00	0,00	151.131,06	211.400,23
45	Chief Physician's Office	54.050,11	0.32	0,00	0,00	23.286,89	30.763,22
46	Medical Directorate	120.795,30	0.72	0,00	0,00	94.298,64	26.496,66
47	Hospital Directorate	58.692,78	0.35	0,00	0,00	20.699,37	37.993,41
48	Chief Nurse's Office	59.687,27	0.35	0,00	0,00	43.491,30	16.195,97
49	Nightshift Directorate	23.441,46	0.14	0,00	0,00	20.914,54	2.526,92
50	Accountancy	75.275,12	0.45	0,00	0,00	45.496,05	29.779
51	Finance	144.186,91	0.85	0,00	0,00	78.542,61	65.644,30
52	Medical Material Depot	25.269,20	0.15	0,00	0,00	0,00	25.269,20
53	Purchase	113.323,06	0.67	0,00	0,00	53.816,26	59.506,80
54	Quality – Statistics	29.671,34	0.18	0,00	0,00	17.643,00	12.028,34
55	Human Resources	33.402,87	0.20	0,00	0,00	17.643,00	15.759,87

**Table 3. Brief Tabulation of 2<sup>nd</sup> Distribution**

NO	COST CENTERS	TOTAL COST (TL)	%
1	Emergency Polyclinic	377.580,42	2,24
2	General Surgical Poly.	147.217,54	0,87
3	General Surgical Clinic	849.129,98	5,03
4	ENT Polyclinic	60.945,44	0,36
5	ENT Clinic	84.698,45	0,50
6	Internal Diseases Polyclinic	251.088,16	1,49
7	Cardiology Polyclinic	583.165,96	3,45
8	Cardiology Clinic	2.138.519,07	12,6
9	CVS Polyclinic	464.955,45	2,75
10	CVS Clinic	3.380.972,98	20,0
11	Neurosurgery Polyclinic	75.333,08	0,45
12	Orthopedics Polyclinic	205.683,89	1,22
13	Orthopedics Clinic	488.605,06	2,89
14	Plastic Surgery Clinic	53.666,21	0,32
	<b>AUXILIARY PRODUCTION EXPENSE</b>		
15	Radiology	252.525,50	1,50
16	Card. Lab. (Echo-Effort)	280.807,67	1,66
17	Angiography	2.074.612,05	12,2
18	Laboratory	1.007.100,72	5,96
19	CVS Interim Intensive Care	837.084,94	4,96
20	Operating Room	1.588.929,25	9,41
21	General Intensive Care	1.290.101,08	7,64
22	Sterilization	327.712,73	1,94
23	Drugstore	64.139,47	0,38
	<b>TOTAL</b>	<b>16.884.575,10</b>	<b>100</b>

**Table 4. Brief Tabulation of 3<sup>rd</sup> Distribution**

NO	COST CENTERS	TOTAL COST (TL)	%
1	Emergency Polyclinic	436.686,14	2,59
2	General Surgical Poly.	180.779,14	1,07
3	General Surgical Clinic	1.152.597,70	6,83
4	ENT Polyclinic	64.153,42	0,38
5	ENT Clinic	101.800,43	0,61
6	Internal Diseases Polyclinic	346.853,95	2,05
7	Cardiology Polyclinic	2.411.666,73	14,28
8	Cardiology Clinic	3.838.997,05	22,74
9	CVS Polyclinic	688.023,07	4,07
10	CVS Clinic	6.688.784,46	39,61
11	Neurosurgery Polyclinic	84.897,89	0,50



<b>12</b>	Orthopedics Polyclinic	219.870,04	1.30
<b>13</b>	Orthopedics Clinic	609.740,65	3.61
<b>14</b>	Plastic Surgery Clinic	59.724,43	0.36
	<b>TOTAL</b>	<b>16.884.575,10</b>	<b>100</b>

**Table 5. Costs of the Hospital in Terms of Service and Polyclinic**

<b>NO</b>	<b>Expense Sites</b>	<b>Patient Day Cost (TL)</b>	<b>Bed Cost (Annual) (TL)</b>	<b>In-Patient Cost (TL)</b>	<b>Polyclinic Cost (TL)</b>
<b>1</b>	EMERGENCY POLYCLINIC				177,01
<b>2</b>	GENERAL SURGICAL POLY.				150,15
<b>3</b>	ENT POLYCLINIC				151,66
<b>4</b>	INTERNAL DISEASES POLYCLINIC				179,25
<b>5</b>	CARDIOLOGY POLYCLINIC				175,42
<b>6</b>	CVS POLYCLINIC				384,16
<b>7</b>	NEUROSURGERY POLYCLINIC				240,50
<b>8</b>	ORTHOPEDECS POLYCLINIC				385,06
<b>9</b>	GENERAL SURGICAL CLINIC	1.163,07	128.066,41	1.563,91	
<b>10</b>	ENT CLINIC	1.357,34	50.900,22	1.641,94	
<b>11</b>	CARDIOLOGY CLINIC	850,84	153.559,88	1.042,92	
<b>12</b>	CVS CLINIC	831,32	167.219,61	6.364,21	
<b>13</b>	ORTHOPEDECS CLINIC	1.319,79	304.870,33	1.451,76	
<b>14</b>	PLASTIC SURGERY CLINIC	1.085,90	29.862,22	2.488,52	
	<b>MEDIAL</b>	<b>880,54</b>	<b>155.645,56</b>	<b>2.083,96</b>	<b>197,01</b>