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This study developed a method for measurement of the cost of a single patient visit in the Family Practice Clinic. Actual cost data were collected for selected clinic visits. The author concluded that more reasonable and accurate cost data can be obtained with computation of actual cost data than can be obtained from the averaging methods of the Uniform Chart of Accounts data base.

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A METHODOLOGY TO MEASURE THE COST OF A SINGLE OUTPATIENT VISIT IN THE FAMILY PRACTICE CLINIC

A Graduate Research Project
Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the
Requirements for the Degree
of
Master of Health Administration

by
Major Donald B. Smith, MSC

July 1985

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INTRODUCTION

Conditions Prompting this Study

Workload measurement is extremely important in a health care setting. It is used for productivity evaluation, allocation of resources (including staff), and comparing the health care outputs of diverse organizations. The Medical Care Composite Unit (MCCU), which is used to measure health care workload within the Department of Defense (DOD), has come under increasing attack recently as a workload measure. Heavily weighted toward inpatient care, it penalizes those hospitals which utilize more cost-effective outpatient modes of treatment. Further, it cannot discriminate between types of outpatient visits requiring varying amounts of resources. Minor surgeries performed on an outpatient basis and cardiology workups receive the same one-third MCCU per visit that a sore throat evaluation receives. At a time when military facilities are being compared unfavorably to their civilian counterparts and resources are being diverted from health care within the Department of Defense, more accurate documentation of health care outputs is essential.

The rush to develop new measures for workload accounting in the civilian sector has resulted from a national priority of reducing health care costs. The old system of cost-based

reimbursement has been discredited by rampant health care cost inflation which has led economists to question the incentives created by the cost-based system. Within the federal government, it has been decided that, at least for the Medicare program, prospective reimbursement--based on diagnostic related groups (DRGs)--is the answer to skyrocketing health care costs. Prospective reimbursement using DRGs is based on the concept of paying for a unit of output, rather than for resource inputs. Developed by a group from Yale University in the 1970s,[1] DRGs relate case mix classification to length of stay which is used as a proxy for resource consumption. Research is under way within DOD to determine the feasibility of adopting DRGs as a measure of inpatient workload.

Outpatient workload is much more difficult to measure than is inpatient workload because of its immense diversity and the lack of agreement as to appropriate case mix categories. Methods under study in the civilian sector include outpatient DRGs,[2] the Reason for Visit Classification System (RFVCS),[3] and diagnosis clusters.[4] The approach which will be implemented for the Army has yet to be determined.

The validity and usefulness of a workload measure depends to a large extent on the degree to which it can account for variance in resource utilization. However, resource utilization is itself a problematic concept. Diverse types of resource inputs usually must be compared

in terms of dollar costs; however, these costs are difficult to measure, inevitably involving arbitrary and complex methods of allocating indirect costs.[5] Relating case mix categories to measurements of resource utilization is essential, not only to validate the case mix categories, but also to guide management decisions when the method of reimbursement or workload accounting is based on these categories. In other words, hospital managers must know what it costs to treat each type of patient if intelligent resource allocation decisions are to be made.

The advent of DRGs has required civilian hospitals to abandon the old methods of cost accounting which were designed to maximize reimbursement under Medicare and Blue Cross cost-based reimbursement systems. Considering each DRG a "product," a product-costing methodology became necessary for effective hospital management and strategic planning.[6] Hospitals have turned to commercial vendors of cost-finding software for help, yet many find that no really good software exists that will meet their product-costing needs.[7] Some software vendors offer a ratio-of-cost-to-charges (RCC) approach to cost finding. They reason that a hospital knows its overall costs and it knows its overall charges; therefore, for any given product, the overall RCC can be applied to current charges to determine that product's cost. This unsophisticated approach is in common use. The goal toward which hospitals and software vendors aspire is a standard

cost development capability. Such a capability involves the development of standard costs for service items (components of the hospital's products) and techniques to measure variances in actual and standard costs. However, Burik and Duvall caution that many software companies can deliver only "vapor ware," or software that is not actually developed, inviting the hospital to be a "test site" for the software's development.[8]

A promising approach to outpatient workload measurement should weight patient visits by resource intensity. This requires both criteria for classifying patient visits and measures of resource utilization. This study addresses the latter. Using the DOD's Uniform Chart of Accounts (UCA) as a base, a method will be developed and demonstrated which will allow the measurement of the cost of a single outpatient visit, or at least improve upon the estimation of this cost.

Department of Defense Manual 6010.10-M describes the Uniform Resources and Performance Accounting System for DOD Medical Operations, otherwise known as the Uniform Chart of Accounts.[9] Development of the UCA followed a study of the military health care system conducted jointly in 1973 by the Office of Management and Budget; the Department of Health, Education, and Welfare; and the Department of Defense. This study highlighted the differences and inconsistencies in the approaches to cost accounting of the various military services within DOD, the effect of which was to make valid

comparisons of cost data impossible. Cost comparisons between military and civilian health care institutions were even less feasible.

The UCA represented a great leap forward. It provided a uniform (among the services) procedure "to record, accumulate and report information regarding the expense (cost incurred) and workload (output) of specific and aggregate functions performed in military medical facilities."[10] Utilizing a one-iteration, step-down procedure for allocating indirect costs, it is perhaps not as sensitive as cost measurement devices involving multiple iterations of cost distribution, but it has the advantage of being a much simpler system to operate. Entitled the "Expense Assignment System" (EAS), this procedure was to be automated to the maximum extent possible. A hierarchy of accounts was established wherein all expenses and corresponding workload data could be grouped into six functional categories: Inpatient Care, Ambulatory Care, Dental Care, Ancillary Services, Support Services, and Special Programs. The first three are the direct patient care programs and the last one, Special Programs, is a catch-all grouping to gather military-specific costs which have no counterparts in the civilian sector (e.g., mobilization planning). All accumulated costs are eventually allocated to either a direct patient care account or the Special Programs account, with the Ancillary Services and Support Services accounts being completely

closed out in the process. Each functional category is divided into summary accounts and further into subaccounts; for example:

Ambulatory Care (functional category)

Surgical Care (summary account)

Urology Clinic (subaccount)

The UCA system does not allocate costs and workload data any further than the subaccounts. This is a major weakness of the system since it allows only the computation of average costs in any given subaccount. Two examples will illustrate why this is such a problem:

1. Pharmacy is a summary account with no subaccounts. All outpatient prescriptions are given a weighted value of "1." This means that the system considers that all outpatient prescriptions, from a bottle of aspirin to a sophisticated new cardiac drug, are equal in cost.

2. Each outpatient clinic is either a summary account or a subaccount, and costs are allocated no further. Workload for clinics is measured in clinic visits. The UCA calculates the cost of a clinic visit as the total costs for the account or subaccount divided by the number of clinic visits. Therefore, in the General Surgery Clinic, a minor outpatient surgery procedure is considered to have the same cost as a routine follow-up visit.

This study will attempt to develop a method to measure the cost of one patient visit in an ambulatory care setting

that is an improvement over the average cost determinations now provided by UCA. Although it will be developed for and tested in the Family Practice Clinic at Dwight David Eisenhower Army Medical Center, the method will be general enough to be adapted for use in other outpatient clinics.

Statement of the Research Question

Can a method be developed for the measurement of the cost of a single patient visit in the Family Practice Clinic at Dwight David Eisenhower Army Medical Center which will be an improvement over the average costs which can currently be calculated from Uniform Chart of Accounts data?

Objectives of the Research

The objectives of this research were to:

1. Identify direct expenses which are measurable, or at least estimable, and which vary between clinic visits. Develop procedures to back these expenses out of the allocation process and to measure or estimate them more accurately for each clinic visit.

2. Develop methods to back out the costs of ancillary services which are currently allocated by UCA as average costs per clinic visit and reallocating these costs in a manner more nearly approximating actual ancillary service usage for each clinic visit.

3. Determine whether certain costs incurred in the production of ancillary services, which are now allocated

as average costs, can be measured more directly (for example, the cost of drugs dispensed in the Outpatient Pharmacy).

4. Test the methodology on a sample of 45 patients. No effort was made to select a random sample since this was a test of the methodology and not an effort to establish representative costs for different types of clinic visits.

5. Develop applications of the methodology which can be useful as management tools in a military ambulatory care setting.

Criteria

1. The methodology should be consistent with UCA, using UCA data when available and feasible.

2. The methodology should be applicable at other locations and not use data sources available only at Dwight David Eisenhower Army Medical Center.

3. Derived costs should be an improvement, in terms of accuracy, over average cost determinations now provided by the UCA.

4. Those direct cost factors selected for measurement or reallocation must be clearly identifiable as applying to specific clinic visits or groups of clinic visits. (For example, time a physician spends with a particular patient would meet this criteria, as would time a nurse spends with a particular group of patients; however, time spent by a nurse coordinating all clinic visits would not qualify.)

5. The methodology should be able, with minor modifications, to provide useful management information.

Assumptions

1. Clinic visits in the Family Practice setting vary in terms of resource intensity. Major direct and indirect cost factors which contribute to this variability can be identified and measured or reallocated.

2. Data sources utilized by the UCA are sufficiently accurate or valid to serve as a basis for cost determination.

3. The types of patients seen in the Family Practice Clinic are sufficiently variable that procedures used to determine costs per clinic visit will apply to a broad range of other military-hospital-based ambulatory care settings.

Limitations

1. No attempt will be made to validate data retrieved from the UCA data base.

2. The UCA's single step-down method of allocating indirect costs produces less accurate cost determinations than do more complex multiple-allocation methods.

3. Department of Defense hospitals do not track supply usage by patient, as do civilian hospitals, since they lack the reimbursement incentives to monitor such costs. Therefore, this data is not available from currently maintained records.

Methodology

This was a pilot study to develop and test a methodology to measure the cost of a single outpatient visit. Three physicians from the Family Practice Clinic at Dwight David Eisenhower Army Medical Center (two staff physicians and one third-year resident) were each asked to keep records as to what was done for and how much time was spent with each of 15 (for the resident, 28) clinic patients for a single clinic visit. These records were to include medications prescribed and ancillary services ordered. No effort was made to ensure selection of random or representative samples since the purpose of the study was to develop a cost-finding methodology.

Uniform Chart of Accounts reports from two quarters previous (First Quarter, Fiscal Year 1985) were utilized to obtain cost data. The following operations were performed on data from the BGYA (Family Practice Clinic) account:

1. Step A: Total expenses for BGYA were computed from First Quarter, Fiscal Year 1985, UCA reports.

2. Step B: Physician salaries were backed out of the total BGYA expenses from Step A.

3. Step C: Expenses allocated from the "D" (Ancillary Services) accounts were backed out of the BGYA expenses after Step B.

4. Step D: Building depreciation was added to total remaining expenses. The UCA does not account for this expense.

The final appropriation for the construction of the medical center was obtained from the Health Facilities Planning Agency.[11] Forty-year-level depreciation was utilized with the annual depreciation being allocated with the same allocation procedure that UCA utilizes for equipment depreciation.

5. Step E: The total expenses after Step D were divided by the total number of Family Practice clinic visits in the First Quarter, 1985, to arrive at average overhead expense per clinic visit.

6. Step F: For each clinic visit, the following expenses were added:

a. The average overhead cost per clinic visit arrived at in Step E.

b. Physician pay for the time spent with the patient.

c. The cost of ancillary services used.

(A detailed analysis of Steps A through F is at Appendix A.)

DISCUSSION

Findings

At Appendix B are the results of applying the methodology to a sample of 58 clinic visits. The average cost of these clinic visits was $57.68. The range was from $19.99 to $370.12 with a standard deviation of $60.14. This compares with an average UCA cost of $37.75 for all Family Practice clinic visits during First Quarter, 1985 ($38.40 when building depreciation is added). The discrepancy in average costs per clinic visit is perhaps partially due to the fact that the three physicians were asked to pick some resource-intensive clinic visits to better test the methodology. It may also reflect higher usage of ancillary services in the Family Practice Clinic than is accounted for in UCA's allocation procedures; however, this cannot be determined from this study since the sample of patients was not random or representative. As can be seen from the magnitudes of the standard deviation and range, there was considerable variability in the costs for the 58 clinic visits. This supports the intuitive perception that some clinic visits are much more resource intensive than others.

Critique of the Methodology

Direct expenses were identified for measurement or estimation. Procedures were developed to back out physician salary expense and ancillary services expense from the Family Practice Clinic (BGYA) account and to measure the use of these resources directly. Costs were assigned to these resources

based on a combination of UCA data and other factors which were described in Appendix A. The remaining costs in BGYA, which were recognized in the average overhead expense per clinic visit, did not lend themselves to direct measurement, primarily because they could not be identified as being specific for a single clinic visit.

The accuracy and completeness of UCA cost data is questionable. UCA input reports are provided by a multitude of personnel who are meeting an administrative requirement but who receive no useful feedback from the system. In fact, the hospitals themselves receive no useful feedback. Therefore, accuracy of the reports is a low priority. Providing useful information to hospital personnel at all levels would give these personnel some incentive to provide accurate data. Further, the UCA ignores the cost of the building itself. The rationale for this is obscure, especially since the original discussions and negotiations that went into the development of the UCA are shrouded in mystery. Finally, the lag time before new equipment is depreciated results in underestimation of equipment depreciation expense.

The discrepancy between Facility Engineer figures on the cost of the building and the Health Facilities Planning Agency (HFPA) figures points to the hazards of accepting local Facility Engineer cost data. At least in the case of Dwight David Eisenhower Army Medical Center, the HFPA cost figures seem more credible. (See Appendix A, Annex D.)

A close approximation of ancillary services costs was critical to the success of the methodology. This was probably better achieved in some ancillary areas than in others. Pharmacy was the one area that lent itself to accomplishment of Objective 3 (determining whether certain costs incurred in the production of ancillary services, which are now allocated as average costs, can be measured more directly). Fifty-eight percent of Pharmacy's costs were supply costs, almost all of which was the cost of drugs. Backing these supply costs out and measuring them precisely allows a very close approximation of prescription costs.

The accuracy of cost estimation in the Pathology, Radiology, and Nuclear Medicine areas depended on the validity of the weighted values used by UCA. The most troublesome of these three areas was Pathology. Pathology weighted values are taken from the College of American Pathologists' (CAP) Manual for Laboratory Workload Recording Method.[12] The CAP "unit value," as it is called, "represents the mean number of laboratory workload units (expressed in minutes) of technical, clerical, and aide time required to perform all the steps necessary to complete the defined procedure once."[13] These unit values were developed through exhaustive time studies which measured the time required for (1) initial handling of the specimen, (2) specimen testing, (3) recording and reporting, (4) daily preparation, (5) maintenance and repair, (6) solution preparation, (7) glassware wash-up, and

(8) direct technical supervision. Paradoxically, the CAP system, which has probably the most scientifically prepared group of weighted values of any of the ancillary services, does a comparatively poor job of accounting for all resources consumed in the production of laboratory services. In other words, technical, clerical, and aide time are poor proxies for other resources consumed such as equipment and supply usage. For example, the methodology used in Appendix A, Annex F-2, assigned a cost of $1.64 to a "SMAC." This was based on a CAP workload value of 2.6 and a cost per workload value of $0.63. However, equipment rental costs and reagent costs alone are approximately $3.50 for this highly automated test.

At Appendix C is a list of costs per test developed by the Department of Pathology at Dwight David Eisenhower Army Medical Center. These costs were developed in January 1985 in response to a request from Headquarters, U.S. Army Health Services Command. Each section analyzed its costs for equipment (eight-year-level depreciation), reagents, expendable supplies, contracts, specimen collection (not included in CAP time studies), and labor. The labor costs were calculated by applying salary costs (including benefits) to times taken from CAP unit values (which are expressed in minutes of technical, clerical, and aide time). Certain fallacies of the method are apparent. The CAP unit values may not correspond to actual times required by Eisenhower Army

Medical Center personnel to perform the tests; and no allowance is made for building depreciation, base operations support, or administrative overhead. Nevertheless, the method has some promise and, with modification, can provide cost data which probably better approximate laboratory costs.

At Appendix D is a table of values which represent a modification of the cost data computed by Eisenhower Army Medical Center Pathology personnel in Appendix C. From Appendix A, Annex F-2, support costs (base operations support) of $224,634 and Office of the Chief costs (administrative overhead) of $29,199 were extracted. These were divided by Clinical Pathology workload values for First Quarter, 1985 (1,683,533), to arrive at a cost of $0.15 per weighted value. This cost was then added to the costs derived by the Department of Pathology personnel (Appendix C) to compensate for shortcomings of their methodology. (Only tests ordered by physicians in this study were costed.) At Appendix E is a recomputation of costs for the 58 clinic visits using Appendix D Clinical Pathology costs. This recomputation resulted in slightly higher costs per clinic visit. The average cost was $58.96 (as compared to $57.68 using the original cost-per-workload value), with a standard deviation of $60.92 (as compared to $60.14).

The immensity of the effort required to develop a comprehensive costing methodology for just one area is evidenced by the fact that the CAP has avoided some difficult

issues like equipment usage or pathologist labor in developing a workload measure. Nevertheless, further efforts along the lines of the Department of Pathology study can improve on the cost-finding methodology described in this study and enhance its ability to estimate true costs, in terms of actual resources consumed, in an outpatient setting.

Management Information Applications

Most of the procedures utilized in this study could be automated if changes were made to UCA software and output reports. Providing cost data by clinic visit would yield the following benefits:

1. Monitoring is a prerequisite for effective control of health care costs. For this purpose, costs should be divided into controllable and noncontrollable costs at each management level.

2. Physician training could be enhanced in terms of teaching more effective utilization of health care resources. Physicians who have resource-intensive practice patterns could be identified and targeted for management efforts.

3. Management practices which are effective in controlling costs could be identified and rewarded; conversely, those which are not could be identified and modified.

4. Cost standards could be developed and could serve as a rational basis for resource allocation in many areas.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study represents a beginning in the application of UCA cost data, with modification, to determine the cost of a single clinic visit in an outpatient setting. Procedures were developed and demonstrated to "back out" certain measurable, or at least estimable, expenses from the allocation process and assign these expenses more directly. The methodology is consistent with UCA, using UCA data sources, except for the addition of building depreciation and physician bonus expense and for the alternate Clinical Pathology costing procedure described. The derived costs per clinic visit are an improvement, in terms of accuracy, over average cost determinations provided now by UCA. With appropriate automation support, the methodology could provide useful management information on a routine basis.

There is much room for improvement, in terms of continuous refinement of this approach. Some expenses which are still aggregated and averaged can be more directly measured and assigned. More definitive studies of the ancillary services can provide more refined estimates of actual costs and can address the issue of how much ancillary services or routine procedures should cost (standard costs).

The Uniform Chart of Accounts is a crude data source for cost data. Its single step-down procedure sacrifices accuracy

for simplicity, and the quality of its input data is suspect. However, it was the best and only source available for this study.

Recommendations

1. Further studies are necessary to develop standard costs for routine services or procedures used in outpatient and ancillary service areas.

2. Software and report formats and distribution for UCA should be modified to provide useful management information to health care personnel at all levels who must input UCA data.

3. Research should begin on a replacement system for the Uniform Chart of Accounts which will provide improved and more comprehensive cost data in more useful formats and in a more timely manner.

4. The Department of Defense should adopt a vertical product costing approach to supplement the horizontal departmental costing approach now in use and to bring DOD more in line with developments in the civilian health care sector.

APPENDIX A

DETAILED ANALYSIS FOR OBTAINING COST DATA

APPENDIX A

Annex A

Family Practice Total UCA Expenses
First Quarter, 1985

(Step A)

Attached are the work sheets used to compute total First Quarter, 1985, UCA expenses for the Family Practice Clinic (BGYA). This does not include some expenses which are not captured by UCA such as building depreciation, depreciation on equipment purchased during the current year (there is a lag period), and physician bonuses. The average UCA expense per clinic visit was $37.75.

The procedures used to complete the work sheet are as follows:

1. List direct expenses from the Direct Expense Summary (manual, from the Trial Balance).

2. Confirm total direct expenses for BGYA using the following reports:

   a. PCN NAA-Q06 DES Page Display

   b. PCN NAA-Q07 DES Explosion

   c. PCN NAA Q08 Direct Expense Summary

3. Extract workload values allocated from support and ancillary services to BGYA from the Step-down Stats Matrix (PCN NAA-Q09). (This report will also give total workload for any hospital work center.)

4. Extract expenses allocated to BGYA from each support service and ancillary service from the Step-down Schedule (PCN NAA-Q10). Total both support service and ancillary service costs.

5. Verify total direct expenses, support service expenses, and ancillary service expenses using the Computation Summary (PCN NAA-Q13).

6. Finally, expenses must be "purified" by adjusting for any expenses which have been collected in "cost pools" which are necessary when a resource is shared by more than one cost center for which separate accounting would be impractical.

BGXA - Family Practice In/Out Cost Pool

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
BGXA	DES #5, Line 21					
EOE	Direct Expense					
1000	Personnel				5,755	
2600	Supplies				88	
1411	Military Pay				10,076	Direct Exp
	Total				15,919	15,919
Verify Expenses On						
	Q06 Page Display				15,919	
	Q07 DES Expl				15,919	
	Q08 DES Expl Summ				15,919	
	"E" Support Costs					Spt Costs
EEYA	Logistics	122	$ Val	88	22	22
					Total Expense	15,941
	"D" Ancillary Costs			0	0	0
	"A" Inpatient Care					
AAAF	Internal Medicine	67	OBDs	21	18	
AABF	Cardiology		"	6	5	
AACF	Coronary Care		"	1	1	
AADA	Dermatology		"	2	2	
AAEF	Endocrinology		"	2	1	
AAFF	Gastroenterology		"	53	47	
AAGF	Hematology		"	15	13	
AAHF	MICU		"	3	2	
AAJF	Neurology		"	5	5	
AAKA	Oncology		"	16	13	
AALF	Pulmonary		"	11	10	
ABAA	General Surgery		"	11	10	
ABBA	Cardio/Thoracic		"	2	1	
ABGA	Otorhinolaryn		"	1	1	
ACAF	Gynecology		"	6	5	
ACBF	Obstetrics		"	51	45	
ADAF	Pediatrics		"	22	19	
ADBF	Nursery/Neonatal		"	7	6	
AEAF	Orthopedics		"	7	6	
AFYF	Psychiatry		"	4	4	
	"B" Outpatient Care					
BGYA	FP Clinic		Visits	18,059	15,727	
				18,305	15,941	
BGXA	FP Cost Pool				-15,941	-15,941
						0

BGYA
Family Practice

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
BGYA	DES #5, Line 22					
EOE	Direct Expense					
1000	Personnel				51,583	
2100	Travel & Trans				385	
2600	Supplies				9,930	
1411	Military Pay				343,816	
	Miscellaneous Adjust				-257,403	Direct Exp
	Total				148,311	148,311
Verify	Expenses On					
BGYA	Q06 Page Display				148,311	
	Q07 DES Expl				148,311	
	Q08 DES Expl Summ				148,311	
	"E" Support Costs					
EAYB	Outpatient Deprec	03	Cl Visits	18,305	23,339	
ECAA	Fire Protection	116	Sq Ft	25,480	40	
ECBA	Police Protection	116	" "	25,480	426	
EDAA	Engineer Liaison	116	" "	25,480	202	
EDBA	Utilities	116	" "	25,480	17,598	
EDEA	Other Base Support	116	" "	25,480	453	
EDCA	Maint Real Prop	116	" "	25,480	4,652	
EDDA	Minor Const	116	" "	25,480	460	
EDFA	Leases/Rentals	116	" "	25,480	0	
EFYB	Custodial	127	Hrs Svc	690	4,471	
EBYA	Command & Admin	9	FTEs	53	90,876	
EEYA	Mat Svcs	122	$ Value	9,930	2,508	
EEYK	MDS	123	" "	9,397	1,476	
EFYA	Exec Housekeep	127	Hrs Svc	690	125	
EGYA	Biomed Equip Maint	129	" "	14	1,238	
EGYB	Biomed Equip Maint	130	$ Val Parts	101	104	
EHYA	Linen	133	Lbs Issued	4,967	3,161	
EKYA	Amb Care Admin	137	Cl Visits	18,059	24,240	Spt Costs
	Total				175,369	175,369
	"D" Ancillary Costs					
DAYA	Pharmacy	77	Wt Proc	31,854	198,685	
DBAA	Clin Pathology	80	" "	95,961	53,440	
DBBA	Anat Pathology	83	" "	19,751	15,804	
DCAA	Diag Radiology	86	" "	9,121	52,416	
DEAA	Cen Ster Supp	101	Hrs Svc	254	6,268	
DDAA	EKG	91	Proced	810	5,007	
DDAB	EKG FP	92	"	73	0	
DDBA	EEG	96	"	6	355	
DDCA	EMG	97	"	6	157	
DDDA	Pulmonary	98	Wt Proc	247	1,119	
DHAA	Inhal Resp	106	Visits	17	397	

(continued)

BGYA - Family Practice (continued)

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
	"D" Ancillary Costs (continued)					
DHBA	Occ Therapy	107	Visits	87	719	
DHCA	P. Med	108	"	6	106	
DHDA	Physical Therapy	109	"	701	12,292	
DHEA	Social Work	111	"	42	914	
DIYA	Nuclear Medicine	112	Wt Proc	3,762	3,863	Ancillary
	Total				351,542	351,542
						675,222
	"B" Outpatient Costs					
BGXA	FP Cost Pool	67	Visits	18,059	15,727	15,727
Purified Expense						690,949

Detail Unit Cost Report
Direct and Support Costs

943,058	(includes McPh)	
-252,109	(McPherson)	
690,949	Eisenhower AMC	

Total Clinic Visits:	Outpatient	20,272
	Inpatient	246
		20,518
	Less McPherson	2,213
	Eisenhower AMC	18,305

UCA Cost per Visit (Eisenhower AMC): 690,949 ÷ 18,305 = 37.75

APPENDIX A

Annex B

Procedure to Back Out Physician Salary Expense

(Step B)

Physician salaries are allocated by UCA according to a procedure whereby physicians are asked semiannually to report the percentage of time they spend in different work centers. These percentages are then applied to their salaries to determine amounts of physician salary expense to be allocated to each account.

Physician salary expenses allocated to each work center will be listed on the Direct Expense Summary (taken from the Trial Balance). The amount allocated to BGYA for First Quarter, 1985, was $67,869.

APPENDIX A

Annex C

Procedure to Back Out Expenses from "D" Accounts

(Step C)

The total expenses allocated from the "D" accounts from the work sheet in Annex A ($351,542) were subtracted from the total expenses remaining after Step B. (Ancillary service expenses are added in later only for services actually utilized.) It should be noted that equipment depreciation from the ancillary service areas still remains in the account since UCA allocates depreciation expense only to either direct patient care accounts or the Special Programs account. To compensate for this, that portion of outpatient depreciation (EAYB) which was allocated from the "D" accounts was also backed out. Depreciation is allocated by UCA to inpatient and outpatient accounts as follows:

1. Depreciation expenses are extracted from the Consolidated High-Dollar Depreciation Report.

2. For a hospital with over 250 daily occupied beds, 60 percent of total depreciation expense is allocated to inpatient accounts and 40 percent is allocated to outpatient accounts. This 40 percent is then further distributed based on a ratio of the clinic's outpatient visits to total outpatient visits for the hospital.

For the First Quarter, 1985, the Family Practice Clinic had 18,305 clinic visits. This was divided by the 138,067 total outpatient visits for Eisenhower Army Medical Center.

This ratio was then multiplied by $321,510 which was the total depreciation expense allocated to the outpatient ("B") accounts. This product was then divided by four to arrive at quarterly depreciation expense allocated to BGYA (Family Practice Clinic) from the "D" accounts:

$$\frac{\frac{18,305}{138,067}\ (\$321,510)}{4} = \$10,657$$

(Depreciation was later added back in to each ancillary account using the Consolidated High-Dollar Depreciation Report.)

APPENDIX A

Annex D

Procedure to Add Building Depreciation Expense to UCA Expenses

(Step D)

Real Property, Engineering Plans and Service Division, Directorate of Facilities Engineering, Fort Gordon, values the building, including exterior lighting, gas lines, site improvements, curbs and gutters, etc., at $29,988,099. This amount includes original construction expenses and subsequent improvements but does not include maintenance and repair expenses. This figure does not agree with data obtained from the U.S. Army Health Facilities Planning Agency (HFPA). Health Facilities Planning Agency records indicate that the final appropriation for Eisenhower Army Medical Center, including cost overruns, was $35,999,030. The latter amount was considered more credible and was therefore utilized.

The UCA does not account for building depreciation. For this study, building depreciation was allocated in the same manner that UCA allocates equipment depreciation. However, 40-year-level depreciation was used (rather than 8-year) and residual value (after 40 years) was not considered.

Dividing $35,999,030 by 40 years yields $899,976 per year. Forty percent of this (outpatient portion) is $359,990. The Family Practice Clinic's portion of this is found by dividing total BGYA clinic visits (18,305) by total Eisenhower Army Medical Center outpatient visits (138,067) and multiplying

this quotient by $359,990. Dividing by four converts this product to a quarterly figure:

$$\frac{\frac{18,305}{138,067}\ (\$359,990)}{4} = \$11,932$$

APPENDIX A

Annex E

Procedure to Calculate Average Overhead Expense per Clinic Visit

(Step E)

Total expenses remaining after Steps A through D were divided by the 18,305 quarterly Family Practice clinic visits to arrive at an average overhead expense per clinic visit. (See work sheet on following page.)

Step A:	Total UCA expenses for BGYA	$690,949
Step B:	Back out physician salaries	(67,869)
Step C:	Back out "D" account UCA expenses	(351,542)
	Back out "D" account depreciation	(10,657)
Step D:	Add in BGYA share of building depreciation	11,932
		$272,813
Step E:	Divide by BGYA clinic visits	
	$272,813 ÷ 18,305	$14.90

APPENDIX A

Annex F

Calculating Costs per Clinic Visit

(Step F)

For each clinic visit add:

1. The average overhead expense per clinic visit calculated in Step E.

2. Physician expense for the time spent with the patient (see Annex F-1).

3. The cost of ancillary services used (see Annexes F-2 through F-10).

APPENDIX A

Annex F-1

Calculation of Physician Expense for
Each Clinic Visit

1. For each physician, a composite standard rate was calculated from the attached message. (These rates are used to determine UCA military personnel salary expenses.)
2. To the composite standard rates were added bonuses received by each physician.
3. The annual total from #2 above was divided by 2087 hours. (UCA uses 2087 hours to calculate hourly rates.) UCA assumes a 40-hour work week and does not account for leaves or nonproductive time. However, it also does not account for time beyond a 40-hour work week. Most Family Practice physicians work much more than 40 hours per week. These factors should tend to cancel each other out.
4. Calculations for each physician are attached.

FM CDR USAHSC FT SAM HOUSTON TX/HSCO-AO

TO CDR DDEAMC FT GORDON GA

SUBJ: COMPOSITE STANDARD RATES FOR COSTING MILITARY PERSONNEL SERVICES - FY 1985

1. EFFECTIVE 1 OCT 84, SUBJECT RATES FOR ARMY PERSONNEL ARE:

PAY GRADE	ANNUAL	MONTHLY	DAILY	HOURLY
0-10	110,569	9,214	424	52.98
0-9	112,142	9,345	430	53.73
0-8	111,787	9,316	428	53.56
0-7	101,690	8,474	390	48.73
0-6	91,936	7,661	352	44.05
0-5	76,348	6,362	293	36.58
0-4	63,966	5,331	245	30.65
0-3	51,074	4,256	196	24.47
0-2	39,862	3,322	153	19.10
0-1	33,580	2,632	121	15.13

PAY GRADE	ANNUAL	MONTHLY	DAILY	HOURLY
W-4	57,233	4,769	219	27.42
W-3	48,450	4,038	186	23.22
W-2	41,443	3,454	159	19.86
W-1	33,676	2,806	129	16.14
E-9	51,058	4,255	196	24.46
E-8	42,329	3,527	162	20.28
E-7	35,521	2,960	136	17.82
E-6	30,013	2,501	115	14.38
E-5	25,330	2,111	97	12.14
E-4	21,542	1,795	83	10.32
E-3	18,917	1,576	72	9.06
E-2	17,192	1,433	66	8.24
E-1	15,954	1,330	61	7.64
CADETS	7,949	662	30	3.81

2. THESE RATES FOR COSTING ARE NOT TO BE CONFUSED WITH BASE PAY RATES. THE REVISED COMPOSITE STANDARD RATES WERE DETERMINED BY FACTORING ADDITIONAL AMOUNTS TO THE BASE PAY ENTITLEMENTS. THOSE FACTORS INCLUDE SUCH ITEMS AS AN INCREASE TO PAY CEILINGS, REVISED VHA RATES, MILITARY PAY RETIREMENT AND REDUCTIONS TO PCS EXPENSES. THE SUBSTANTIAL INCREASE FROM FY 84 TO FY 85 IS ATTRIBUTED TO MILITARY PAY RETIREMENT FINANCING EFFECTIVE 1 OCT 84.

Physician #1 - LTC (Staff)

$76,348 - Annual composite standard rate

10,000 - Medical Additional Special Pay

2,500 - Board Certification Pay

9,000 - Variable Special Pay

$97,848 - Total Annual Salary Expense

$\frac{\$97,848}{2087}$ = $46.88 per hour

Physician #2 - MAJ (Staff)

$63,966 - Annual composite standard rate

9,000 - Medical Additional Special Pay

2,000 - Board Certification Pay

10,000 - Variable Special Pay

$84,966 - Total Annual Salary Expense

$\frac{\$84,966}{2087}$ = $40.71 per hour

Physician #3 - CPT (3d-Year Resident)

$51,074 - Annual composite standard rate

5,000 - Variable Special Pay

$56,074 - Total Annual Salary Expense

$\frac{\$56,074}{2087}$ = $26.87 per hour

APPENDIX A

Annex F-2

Calculation of Clinical Pathology Expense
for Each Clinic Visit

A cost per weighted value was determined for Clinical Pathology. The attached work sheet utilizes essentially the same procedures as were used in Annex A except that depreciation was added in and total costs were divided by total weighted procedures to arrive at a cost per weighted procedure. Current depreciation was taken from the Consolidated High-Dollar Value Depreciation Report for Fiscal Year 1984. (Depreciation which was not specifically listed for Clinical or Anatomical Pathology was allocated 80 percent to Clinical Pathology and 20 percent to Anatomical Pathology.)

The UCA uses the weighted values developed by the College of American Pathologists (CAP) Workload Reporting Committee.[14] The CAP weighted values are expressed in workload units, which are the technical, clerical, and aide time required to perform all the steps necessary to complete a specific laboratory procedure. They don't normally take into account specimen collection, standards, quality controls, or repeats. Further, such factors as equipment cost, space required, and administrative support are completely ignored. Nevertheless, the CAP system is widely utilized and is probably the best standard system available.

Clinical Pathology

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DBAA	DES #6, Line 32					
EOE	Direct Expense					
1000	Civilian Personnel				231,159	
2100	Travel & Trans				16	
2300	Rents				20,663	
2500	Contracts				1,966	
2600	Supplies				165,736	
1411	Military Pay				231,880	
	Suppl Care				30,834	Direct Exp
	Total				682,254	682,254
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	22,319	35	
ECBA	Police Protection	116	" "	22,319	373	
EDAA	Engineer Liaison	116	" "	22,319	177	
EDBA	Utilities	116	" "	22,319	15,414	
EDEA	Other Base Support	116	" "	22,319	398	
EDCA	Maint Real Prop	116	" "	22,319	4,075	
EDDA	Minor Const	116	" "	22,319	403	
EDFA	Leases/Rentals	116	" "	22,319		
EDGA	Transportation	119	Hrs Svc	537	877	
EFYB	Custodial	127	" "	261	1,691	
EBYA	Command & Admin	9	FTEs	84	144,030	
EEYA	Mat Svcs	122	$ Value	165,736	41,857	
EFYA	Custodial	127	Hrs Svc	261	48	
EGYA	Biomed Equip Maint	129	Hrs Svc	166	14,676	
EGYB	Biomed Equip Maint	130	$ Val Parts	565	580	Spt Costs
	Total					224,634
	"D" Ancillary Costs					
DAYA	Pharmacy	77	Wt Proc	235	1,465	
DBXP	Ofc of Chief (Path)	85	" "	1,683,533	29,199	Anc Costs 30,664
				Total UCA Expense		937,552
	Current Depreciation (from Corsolidated HDV Depreciation Report)					119,713
						1,057,265

$\frac{1,057,265}{1,683,533}$ = .63 per weighted value

APPENDIX A

Annex F-3

Calculation of Anatomical Pathology Expense
for Each Clinic Visit

A cost per weighted value was determined for Anatomical Pathology, using the attached work sheet. The UCA again takes weighted values from the CAP's Manual for Laboratory Workload Recording Method (1985 Edition),[15] and the limitations discussed in Annex F-2 apply.

Anatomical Pathology

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DBBA	DES #6, Line 35					
EOE	Direct Expense					
1000	Civilian Personnel				75,634	
2600	Supplies				12,928	
1411	Military Pay				84,304	
	Total				172,886	172,886
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	4,301	7	
ECBA	Police Protection	116	" "	4,301	72	
EDAA	Engineer Liaison	116	" "	4,301	34	
EDBA	Utilities	116	" "	4,301	2,970	
EDEA	Other Base Support	116	" "	4,301	76	
EDCA	Maint Real Prop	116	" "	4,301	785	
EDDA	Minor Const	116	" "	4,301	78	
EDFA	Leases/Rentals	116	" "	4,301	0	
EFYB	Custodial	127	Hrs Svc	237	1,536	
EBYA	Command & Admin	9	FTEs	33	56,584	
EEYA	Mat Svcs	122	$ Val	12,928	3,265	
EEYK	MDS	123	" "	9	1	
EFYA	Exec Housekeep	127	Hrs Svc	237	42	
EGYA	Biomed Equip Maint	129	" "	6	530	
EGYB	Biomed Equip Maint	130	$ Val Parts	42	43	
EHYA	Linen	133	Lbs Issued	52	33	Spt Costs
	Total					66,056
	"D" Ancillary Costs					Anc Costs
DBXP	Ofc of Chief (Path)	85	Wt Proc	299,251	507	507
					Total UCA Expense	239,449
	Current Depreciation (from Consolidated HDV Depreciation Report)					33,877
						273,326

$\frac{273,326}{299,251}$ = .91 per weighted procedure

APPENDIX A

Annex F-4

Calculation of Pharmacy Expense for Each Clinic Visit

The UCA has weighted values for Pharmacy; however, all outpatient prescriptions have a weighted value of "1." For this study, the expenses for medical supplies (which were mostly drugs) were backed out (UCA Code 2660: $845,071). Also backed out was $7,784 for therapeutic food supplements. Added in was current depreciation for Pharmacy ($5,323). Dividing these adjusted expenses by total workload yields an overhead cost per prescription of $2.63 (see attached work sheet).

For each prescription, the actual supply cost of the drugs dispensed was added to the overhead cost to arrive at the total cost of the prescription.

No attempt was made to account for the cost of refills of original prescriptions. Any attempt to associate all prescription refills with a particular clinic visit would probably prove futile since many of the medications are for chronic conditions and are taken on a nearly continuous basis.

Pharmacy (EAMC)

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DAYA	DES #6, Line 29					
EOE	Direct Expense					
1000	Civilian Personnel				109,960	
2100	Travel & Trans				103	
2300	Rents				3,804	
2400	Printing & Reprod				3,000	
2500	Contracts				900	
2600	Supplies (Includes $7,783.73 Ther Food Suppl)				853,980	
1411	Military Pay				165,286	
	Adjust - Reimbursement				24,978	Direct Exp
	Total				1,162,011	1,162,011
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	5,835	9	
ECBA	Police Protection	116	" "	5,835	98	
EDAA	Engineer Liaison	116	" "	5,835	46	
EDBA	Utilities	116	" "	5,835	4,030	
EDEA	Other Base Support	116	" "	5,835	104	
EDCA	Maint Real Prop	116	" "	5,835	1,066	
EDDA	Minor Const	116	" "	5,835	106	
EDFA	Leases/Rentals	116	" "	5,835	0	
EFYB	Custodial	127	Hrs Svc	282	1,827	
EBYA	Command & Admin	9	FTEs	46	78,873	
EEYA	Mat Svcs	122	$ Val	853,980	215,675	
EEYK	MDS	123	" "	379	60	
EFYA	Custodial/ELO	127	Hrs Svc	282	51	
EGYA	Biomed Equip Maint	129	" "	3	265	
EHYA	Linen	133	Lbs Issued	247	157	Spt Costs
	Total					302,367
				Total UCA Expense		1,464,378
	Current Depreciation					5,323
	(from Consolidated HDV Depreciation Report)					1,469,701
	Minus Medical Supply Costs					(845,071)
	Minus Therapeutic Food Supplements					(7,784)
						616,846

Overhead Cost per Prescription: $\frac{616,846}{234,775} = 2.63$

APPENDIX A

Annex F-5

Calculation of Radiology Expense
for Each Clinic Visit

On the attached work sheet, current depreciation was added to UCA expenses for the Department of Radiology to arrive at a cost per weighted procedure of $8.13. This department exemplifies the problem with the delay in expensing depreciation for new equipment since the new computerized tomography (CT) scanner is not included on the Consolidated High-Dollar Value Depreciation Report.

Diagnostic Radiology (EAMC)

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DCAA	DES #7, Line 4					
EOE	Direct Expense					
1000	Civilian Personnel				134,525	
2600	Supplies				113,924	
3100	Equipment				1,660	
1411	Military Pay				146,168	
	Subtotal				396,277	
	Civilian Augmentation (Supplemental Care)				9,531	Direct Exp
	Total				405,808	405,808
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	15,489	25	
ECBA	Police Protection	116	" "	15,489	259	
EDAA	Engineer Liaison	116	" "	15,489	123	
EDBA	Utilities	116	" "	15,489	10,697	
EDEA	Other Base Support	116	" "	15,489	276	
EDCA	Maint Real Prop	116	" "	15,489	2,827	
EDDA	Minor Const	116	" "	15,489	280	
EDFA	Leases/Rentals	116	" "	15,489	0	
EFYB	Custodial	127	Hrs Svc	1,377	8,923	
EBYA	Command & Admin	9	FTEs	53	90,876	
EEYA	Mat Svcs	122	$ Val	115,584	29,191	
EEYK	MDS	123	" "	3,417	537	
EFYA	Exec Housekeep	127	Hrs Svc	1,377	249	
EGYA	Biomed Equip Maint	129	" "	672	59,410	
EGYB	Biomed Equip Maint	130	$ Val Parts	7,966	8,183	
EHYA	Linen	133	Lbs Issued	9,573	6,093	Spt Costs 217,949
	"D" Ancillary Costs					Anc Costs
DCXP	Ofc of Chief (Radiol)	90		114,008	31,392	31,392
					Total UCA Expense	655,149
	Current Depreciation (from Consolidated HDV Depreciation Report)					271,498
						926,647

$\frac{926,647}{114,008}$ = 8.13 per Weighted Procedure

APPENDIX A

Annex F-6

Calculation of Nuclear Medicine Expense
for Each Clinic Visit

The attached work sheet combines UCA costs with depreciation expense to arrive at total expenses for Nuclear Medicine. This, when divided by total workload, yields a cost of $1.70 for each weighted procedure.

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DIYA	DES #7, Line 30					
EOE	Direct Expense					
1000	Civilian Personnel				7,990	
2600	Supplies				24,764	
3100	Equipment				2,145	
1411	Military Pay				48,906	
	Total				83,805	Direct Exp 83,805
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	3,240	5	
ECBA	Police Protection	116	" "	3,240	54	
EDAA	Engineer Liaison	116	" "	3,240	26	
EDBA	Utilities	116	" "	3,240	2,237	
EDEA	Other Base Support	116	" "	3,240	58	
EDCA	Maint Real Prop	116	" "	3,240	591	
EDDA	Minor Const	116	" "	3,240	58	
EDFA	Leases/Rentals	116	" "	3,240	0	
EFYB	Custodial	127	Hrs Svc	129	836	
EBYA	Command & Admin	9	FTEs	7	12,002	
EEYA	Mat Svcs	122	$ Val Parts	26,909	6,795	
EEYK	MDS	123	" " "	336	53	
EFYA	Exec Housekeep	127	Hrs Svc	129	24	
EGYA	Biomed Equip Maint	129	" "	40	3,536	
EHYA	Linen	133	Lbs Issued	487	313	Spt Costs 26,585
	"D" Ancillary Costs					Anc Costs
DAYA	Pharmacy	77	Wt Proc	235	1,466	1,466
					Total UCA Expense	111,856
	Current Depreciation (from Consolidated HDV Depreciation Report)				73,344	73,344
						185,200

$\frac{185,200}{109,099}$ = 1.70 per weighted procedure

Workload: 109,099
SAS#: 112
P.F.: Weighted Procedure

APPENDIX A

Annex F-7

Calculation of Occupational Therapy Expense for Each Clinic Visit

Occupational therapy ordered is treated like any other ancillary service and included in the cost of the Family Practice clinic visit. Total UCA costs plus depreciation expense were divided by total visits to arrive at a cost of $8.26 for each Occupational Therapy visit (see attached work sheet).

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DHBA	DES #7, Line 24					
EOE	Direct Expense					
1000	Civilian Personnel				14,403	
2100	Travel & Trans				60	
2300	Rents				1,218	
2600	Supplies				3,462	
1411	Military Pay				54,054	Direct Exp
	Total				73,197	73,197
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	6,528	10	
ECBA	Police Protection	116	" "	6,528	110	
EDAA	Engineer Liaison	116	" "	6,528	52	
EDBA	Utilities	116	" "	6,528	4,509	
EDEA	Other Base Support	116	" "	6,528	116	
EDCA	Maint Real Prop	116	" "	6,528	1,191	
EDDA	Minor Const	116	" "	6,528	117	
EDFA	Leases/Rentals	116	" "	6,528	0	
EDGA	Transportation	119	Hrs Svc	180	294	
EFYB	Custodial	127	" "	234	1,516	
EBYA	Command & Admin	9	FTEs	11	18,861	
EEYA	Mat Svcs	122	$ Val	3,462	875	
EEYK	MDS	123	" "	85	13	
EFYA	Exec Housekeep	127	Hrs Svc	234	43	
EGYA	Biomed Equip Maint	129	" "	1	88	
EHYA	Linen	133	Lbs Issued	214	136	
						27,931
					Total UCA Expense	101,128
	Current Depreciation (from Consolidated HDV Depreciation Report)					99
						101,227

$\frac{101,227}{12,249} = 8.26$

Workload: 12,249
SAS#: 107
P.F.: Visits

APPENDIX A

Annex F-8

Calculation of Physical Therapy Expense
for Each Clinic Visit

Physical therapy ordered is treated like any other ancillary service and included in the cost of the Family Practice clinic visit. Total UCA costs plus depreciation expense were divided by total visits to arrive at a cost of $18.30 per Physical Therapy visit (see attached work sheet).

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DHDA	DES #7, Line 26					
EOE	Direct Expense					
1000	Civilian Personnel				24,621	
2100	Travel & Trans				63	
2600	Supplies				4,213	
1411	Military Pay				63,492	Direct Exp
	Total				92,389	92,389
		(To BEDA, Neuromuscular Screen			- 9,302)	- 9,302
						83,087
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	15,889	25	
ECBA	Police Protection	116	" "	15,889	265	
EDAA	Engineer Liaison	116	" "	15,889	126	
EDBA	Utilities	116	" "	15,889	10,973	
EDEA	Other Base Support	116	" "	15.889	283	
EDCA	Maint Real Prop	116	" "	15,889	2,901	
EDDA	Minor Const	116	" "	15,889	287	
EDFA	Leases/Rentals	116	" "	15,889	0	
EFYB	Custodial	127	Hrs Svc	261	1,691	
EBYA	Command & Admin	9	FTEs	13	22,290	
EEYA	Mat Svcs	122	$ Value	4,213	1,064	
EEYK	MDS	123	" "	1,252	197	
EFYA	Exec Housekeep	127	Hrs Svc	261	47	
EGYA	Biomed Equip Maint	129	" "	71	6,277	
EGYB	Biomed Equip Maint	130	$ Val Parts	132	135	
EHYA	Linen	133	Lbs Issued	6,129	3,901	Spt Costs 50,462
	"D" Ancillary Costs					Anc Costs
DEAA	Cen Ster Supp	101	Hrs Svc	40	987	987
					Total UCA Expense	134,536
Current Depreciation (from Consolidated HDV Depreciation Report)						5,854
						140,390

$\frac{140,390}{7,672}$ = 18.30 per PT visit

Workload: 7672
SAS#: 109
P.F.: Visits

APPENDIX A

Annex F-9

Calculation of Pulmonary Function Expense
for each Clinic Visit

Pulmonary function services ordered were treated like any other ancillary services and included in the cost of the Family Practice clinic visit. Total UCA costs were divided by total workload to arrive at a cost of $4.53 per weighted procedure (see attached work sheet). There were no depreciation expenses listed on the Consolidated High-Dollar Value Depreciation Report.

Pulmonary Function

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DDDA	DES #7, Line 14					
EOE	Direct Expense					
1000	Civilian Personnel				11,940	
2600	Supplies				1,601	Direct Exp
	Total				13,541	13,541
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	786	1	
ECBA	Police Protection	116	" "	786	13	
EDAA	Engineer Liaison	116	" "	786	6	
EDBA	Utilities	116	" "	786	543	
EDEA	Other Base Support	116	" "	786	14	
EDCA	Maint Real Prop	116	" "	786	143	
EDDA	Minor Const	116	" "	786	15	
EDFA	Leases/Rentals	116	" "	786	0	
EFYB	Custodial	127	Hrs Svc	90	583	
EBYA	Command & Admin	9	FTEs	2	3,430	
EEYA	Mat Svcs	122	$ Val	1,601	405	
EEYK	MDS	123	$ Val	514	81	
EFYA	Exec Housekeep	127	Hrs Svc	90	16	Spt Costs 5,250
					Total UCA Expense	18,792

$\frac{18,792}{4,149}$ = 4.53 per weighted procedure

Workload: 4,149
SAS#: 98
P.F.: Weighted Procedure

APPENDIX A

Annex F-10

Calculation of EKG Expense
for each Clinic Visit

Total UCA expenses were divided by workload to yield a cost of $6.18 per EKG (see attached work sheet). There were no depreciation expenses listed on the Consolidated High-Dollar Value Depreciation Report.

EKG (EAMC)

UCA Code	Description	SAS#	P.F.	Workload	Dollar Value	Q13 Computation Summary
DDAA	DES #7, Line 8					
EOE	Direct Expense					
1000	Civilian Personnel				28,465	
2600	Supplies				12,727	
1411	Military Pay				2,706	Direct Exp
	Total				43,898	43,898
	"E" Support Costs					
ECAA	Fire Protection	116	Sq Ft	2,249	4	
ECBA	Police Protection	116	" "	2,249	38	
EDAA	Engineer Liaison	116	" "	2,249	18	
EDBA	Utilities	116	" "	2,249	1,554	
EDEA	Other Base Support	116	" "	2,249	40	
EDCA	Maint Real Prop	116	" "	2,249	411	
EDDA	Minor Const	116	" "	2,249	41	
EDFA	Leases/Rentals	116	" "	2,249	0	
EFYB	Custodial	127	Hrs Svc	144	934	
EBYA	Command & Admin	9	FTEs	4	6,859	
EEYA	Mat Svcs	122	$ Val	12,727	3,214	
EFYA	Exec Housekeep	127	Hrs Svc	144	26	Spt Costs 13,139
					Total UCA Expense	57,037

$\frac{57,037}{9,226}$ = 6.18 per EKG

APPENDIX B

APPLICATION OF METHODOLOGY

APPENDIX B

Patient #1:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Sinequan (180 25-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 12.15	
	14.78	14.78
		$36.47

Patient #2:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Bellergal (90 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 17.25	
	19.88	19.88
	(2) Chlortrimatin (60 4-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .11	
	2.74	2.74
	b. Clinical Pathology:	
	(1) Fasting Blood Sugar	
	Weighted Value = 2.2	
	Cost per W.V. = .63	
	2.2 x .63 = 1.39	1.39
	(2) Two-Hour Postprandial Glucose	
	Weighted Value = 2.2	
	Cost per W.V. = .63	
	2.2 x .63 = 1.39	1.39
		$53.88

Patient #3:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	4 x .63 = 2.52	2.52
		$24.21

Patient #4:

1.	Average Overhead Expense	$ 14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Radiology:	
	(1) OB Ultrasound	
	Weighted Value = 13	
	Cost per W.V. = 8.13	
	13 x 8.13 = 105.69	105.69
		$134.17

Patient #5:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Chlortrimatin (90 4-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .17	
	2.80	2.80
		$31.28

Patient #6:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
		$21.69

Patient #7:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (5 minutes)	3.39
		$18.29

Patient #8:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Tolectin DS (60 400-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 10.80	
	13.43	13.43
	(2) Thiamine (30 50-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .22	
	2.85	2.85
	(3) Maalox (6 bottles)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 2.77	
	5.40	5.40
	(4) Gaviscon (150 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 6.25	
	8.88	8.88
		$59.04

Patient #9:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Cardiazem (120 60-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 31.80	
	34.43	34.43
		$59.51

Patient #10:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
		$21.69

Patient #11:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	b. Clinical Pathology:	
	(1) Sputum Culture	
	Weighted Value = 10	
	Cost per W.V. = .63	
	.63 x 10 = 6.30	6.30
	(2) KOH (Wet Mount)	
	Weighted Value = 7.5	
	Cost per W.V. = .63	
	.63 x 7.5 = 4.73	4.73
	c. Pharmacy:	
	(1) Tetracycline (80 250-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.82	
	4.45	4.45
	(2) Monistat Cream	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 4.49	
	7.12	7.12
		$71.02

Patient #12:

1.	Average Overhead Expense	$ 14.90
2.	Physician #2 (30 minutes)	20.36
3.	Ancillary Services:	
a.	Radiology:	
(1)	Mammogram	
	Weighted Value = 7	
	Cost per W.V. = 8.13	
	8.13 x 7 = 56.91	56.91
b.	Clinical Pathology	
(1)	Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
(2)	SMAC	
	Weighted Value = 2.6	
	Cost per W.V. = .63	
	.63 x 2.6 = 1.64	1.64
c.	Pharmacy	
(1)	Estrogen Cream	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.41	
	8.04	8.04
(2)	Salicylic Acid Plasters	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 11.83	
	14.46	14.46
		$118.83

Patient #13:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (25 minutes)	17.38
3.	Ancillary Services:	
a.	Radiology:	
(1)	X-Ray, Abdomen	
	Weighted Value = 6	
	Cost per W.V. = 8.13	
	8.13 x 6 = 48.78	48.78
b.	Clinical Pathology:	
(1)	Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
(2)	SMA-6	
	Weighted Value = 2.9	
	Cost per W.V. = .63	
	.63 x 2.9 = 1.83	1.83
(3)	Liver Function Test	
	Weighted Value = 3	
	Cost per W.V. = .63	
	.63 x 3 = 1.89	1.89
(4)	Urinalysis	
	Weighted Value = 6	
	Cost per W.V. = .63	
	.63 x 6 = 3.78	3.78
c.	Pharmacy:	
(1)	Bentyl (90 20-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .95	
	3.58	3.58
		$94.66

Patient #14:

1.	Average Overhead Expense	$ 14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Fasting SMAC	
	Weighted Value = 2.6	
	Cost per W.V. = .63	
	.63 x 2.6 = 1.64	1.64
	b. Nuclear Medicine:	
	(1) MUGA	
	Weighted Value = 200	
	Cost per W.V. = 1.70	
	1.70 x 200 = 340	340.00
		$370.12

Patient #15:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	b. Clinical Pathology:	
	(1) KOH (Wet Mount)	
	Weighted Value = 7.5	
	Cost per W.V. = .63	
	.63 x 7.5 = 4.73	4.73
	(2) Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
	(3) SMAC	
	Weighted Value = 2.6	
	Cost per W.V. = .63	
	.63 x 2.6 = 1.64	1.64
	(4) Urine Culture	
	Weighted Value = 8.5	
	Cost per W.V. = .63	
	.63 x 8.5 = 5.36	5.36
	(5) Thyroid Function Test (T_4)	
	Weighted Value = 7	
	Cost per W.V. = .63	
	.63 x 7 = 4.41	4.41
	c. Anatomical Pathology:	
	(1) Pelvic PAP	
	Weighted Value = 15	
	Cost per W.V. = .91	
	.91 x 15 = 13.65	13.65

(continued)

Patient #15 (continued):

d. Pharmacy:

(1) Flagyl (2 tablets)

Pharmacy Overhead = 2.63

Cost of Drug = .25

2.88

(2) Slo-Bid (60 200-mg tablets)

Pharmacy Overhead = 2.63

Cost of Drug = 2.70

5.33

5.33

$93.39

Patient #16:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (40 minutes)	31.25
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
	(2) Urinalysis	
	Weighted Value = 6	
	Cost per W.V. = .63	
	.63 x 6 = 3.78	3.78
	b. Pharmacy:	
	(1) Dantrium	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 22.59	
	25.22	25.22
		$77.67

Patient #17:

1.	Average Overhead Expense	$ 14.90
2.	Physician #1 (60 minutes)	46.88
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	(2) Barium Swallow	
	Weighted Value = 7	
	Cost per W.V. = 8.13	
	8.13 x 7 = 56.91	56.91
	b. EKG	6.18
	c. Pharmacy	
	(1) Slo-Bid (60 300-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 2.80	
	5.43	5.43
		$154.69

Patient #18:

1. Average Overhead Expense	$14.90
2. Physician #1 (10 minutes)	7.81
	$22.71

Patient #19:

1. Average Overhead Expense	$14.90
2. Physician #1 (5 minutes)	3.91
	$18.81

Patient #20:

1. Average Overhead Expense	$14.90
2. Physician #1 (45 minutes)	35.16
3. Ancillary Services:	
a. EKG	6.18
	$56.24

Patient #21:

1. Average Overhead Expense	$14.90
2. Physician #1 (15 minutes)	11.72
	$26.62

Patient #22:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (20 minutes)	15.63
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	b. Clinical Pathology:	
	(1) SMAC-20	
	Weighted Value = 2.6	
	Cost per W.V. = .63	
	.63 x 2.6 = 1.64	1.64
	(2) Urinalysis	
	Weighted Value = 6	
	Cost per W.V. = .63	
	.63 x 6 = 3.78	3.78
	c. EKG	6.18
		$66.52

Patient #23:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (20 minutes)	15.63
		$30.53

Patient #24:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (25 minutes)	19.53
		$34.43

Patient #25:

1.	Average Overhead Expense	$ 14.90
2.	Physician #1 (75 minutes)	58.60
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	b. Clinical Pathology:	
	(1) SMAC-20	
	Weighted Value = 1.6	
	Cost per W.V. = .63	
	.63 x 1.6 = 1.64	1.64
	(2) Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
	(3) Thyroid Function Test (T_3)	
	Weighted Value = 7	
	Cost per W.V. = .63	
	.63 x 7 = 4.41	4.41
	(4) Thyroid Function Test (T_4)	
	Weighted Value = 7	
	Cost per W.V. = .63	
	.63 x 7 = 4.41	4.41
	(5) TSH	
	Weighted Value = 7	
	Cost per W.V. = .63	
	.63 x 7 = 4.41	4.41
		$115.28

Patient #26:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (15 minutes)	11.72
3.	Ancillary Services:	
	a. Radiology:	
	(1) Sinus Series (Paranasal)	
	Weighted Value = 5	
	Cost per W.V. = 8.13	
	8.13 x 5 = 40.65	40.65
	b. Pharmacy:	
	(1) Sudafed (40 30-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drugs = .14	
	2.77	2.77
	(2) Fiorinal (15 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drugs = .45	
	3.08	3.08
		$73.12

Patient #27:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (25 minutes)	19.53
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Feldine (30 20-mg capsules)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 21.90	
	24.53	24.53
	(2) Flexeril (25 10-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drugs = 7.38	
	10.01	10.01
		$68.97

Patient #28:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (15 minutes)	11.72
		$26.62

Patient #29:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (20 minutes)	15.63
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Sudafed (40 30-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .14	
	2.79	2.79
	(2) Inderal (60 40-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.52	
	8.15	8.15
	(3) Tagamet (30 300-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 7.75	
	10.38	10.38
		$51.85

Patient #30:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (15 minutes)	11.72
3.	Ancillary Services:	
	a. Radiology:	
	(1) Barium Swallow	
	Weighted Value = 7	
	Cost per W.V. = 8.13	
	8.13 x 7 = 56.91	56.91
		$83.53

Patient #31:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Catapres (120 .2-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 15.84	
	18.47	18.47
		$43.55

Patient #32:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) CBC with Reticular Count	
	Weighted Value = 9	
	Cost per W.V. = .63	
	.63 x 9 = 5.67	5.67
	(2) SMA-20	
	Weighted Value = 2.6	
	Cost per W.V. = .63	
	.63 x 2.6 = 1.64	1.64
		$29.00

Patient #33:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Urine Culture	
	Weighted Value = 8.5	
	Cost per W.V. = .63	
	.63 x 8.5 = 5.36	5.36
	b. Pharmacy:	
	(1) Urised (100 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 11.20	
	13.83	13.83
		$44.27

Patient #34:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Bacitracin Ointment	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .30	
	2.93	2.93
		$28.01

Patient #35:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Bentyl (50 20-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .53	
	3.16	3.16
	(2) Tylenol #3 (15 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .75	
	3.38	3.38
		$31.62

Patient #36:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (30 minutes)	20.36
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) SMA-20	
	Weighted Value = 2.6	
	Cost per W.V. = .63	
	.63 x 2.6 = 1.64	1.64
	(2) Hepatitis A and B Screen	
	Weighted Value = 24	
	Cost per W.V. = .63	
	.63 x 24 = 15.12	15.12
		$52.02

Patient #37:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) CBC with Reticular Count	
	Weighted Value = 9	
	Cost per W.V. = .63	
	.63 x 9 = 5.67	5.67
	(2) SMA-20	
	Weighted Value = 2.6	
	Cost per W.V. = .63	
	.63 x 2.6 = 1.64	1.64
	b. Pharmacy:	
	(1) Maalox (6 bottles)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 2.77	
	5.40	5.40
		$37.79

Patient #38:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (25 minutes)	16.96
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Annusol Cream	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.46	
	8.09	8.09
		$39.95

Patient #39:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Throat Culture	
	Weighted Value = 7.7	
	Cost per W.V. = .63	
	.63 x 7.7 = 4.85	4.85
	b. Pharmacy:	
	(1) Wonder Gargle	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.80	
	4.43	4.43
	(2) Penicillin	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.82	
	4.45	4.45
		$35.42

Patient #40:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Elavil (30 75-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .69	
	3.32	3.32
	(2) Ampicillin (500 mg)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.96	
	8.59	8.59
	(3) Beconase Inhaler	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.86	
	8.49	8.49
		$48.87

Patient #41:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Tenormin (30 50-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 8.22	
	10.85	10.85
		$35.93

Patient #42:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Urine Culture	
	Weighted Value = 8.5	
	Cost per W.V. = .63	
	.63 x 8.5 = 5.36	5.36
		$27.05

Patient #43:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #44:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Dyazide (civilian pharmacy - no expense to Eisenhower Army Medical Center)	
		$25.08

Patient #45:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
		$28.47

Patient #46:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #47:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #48:

1.	Average Overhead Expense		$14.90
2.	Physician #3 (5 minutes)		3.39
3.	Ancillary Services:		
	a. Pharmacy:		
	(1) Bacitracin Ointment		
	Pharmacy Overhead =	2.63	
	Cost of Drug =	.30	
		2.93	2.93
			$21.22

Patient #49:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (7.5 minutes)	5.09
		$19.99

Patient #50:

1.	Average Overhead Expense	$ 14.90
2.	Physician #3 (30 minutes)	20.36
3.	Ancillary Services:	
	a. Radiology:	
	(1) X-Ray, Acute Abdominal Series	
	Weighted Value = 6	
	Cost per W.V. = 8.13	
	8.13 x 6 = 48.78	48.78
	(2) Barium Enema	
	Weighted Value = 9	
	Cost per W.V. = 8.13	
	8.13 x 9 = 73.17	73.17
	(3) Ultrasound of Aorta	
	Weighted Value = 13	
	Cost per W.V. = 8.13	
	8.15 x 13 = 105.69	105.69
	b. Clinical Pathology:	
	(1) Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
		$265.42

Patient #51:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (7.5 minutes)	5.09
		$19.99

Patient #52:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
	(2) SMA-6	
	Weighted Value = 2.9	
	Cost per W.V. = .63	
	.63 x 2.9 = 1.83	1.83
		$32.82

Patient #53:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services	
	a. Pharmacy:	
	(1) Chlortrimatin (50 4-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .14	
	2.77	2.77
	(2) Ampicillin (40 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .79	
	3.42	3.42
		$27.88

Patient #54:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #55:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (30 minutes)	20.36
		$35.26

Patient #56:

1.	Average Overhead Expense		$14.90
2.	Physician #3 (15 minutes)		10.18
3.	Ancillary Services:		
	a. Pharmacy:		
	(1) Codeine (50 tablets)		
	Pharmacy Overhead = 2.63		
	Cost of Drug = 3.50		
		6.13	6.13
	(2) Inderal (60 80-mg tablets)		
	Pharmacy Overhead = 2.63		
	Cost of Drug 12.12		
		14.75	14.75
			$45.96

Patient #57:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
		$28.47

Patient #58:

1.	Average Overhead Expense	$ 14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Radiology:	
	(1) Barium Enema	
	Weighted Value = 9	
	Cost per W.V. = 8.13	
	8.13 x 9 = 73.17	73.17
	b. Clinical Pathology:	
	(1) Complete Blood Count	
	Weighted Value = 4	
	Cost per W.V. = .63	
	.63 x 4 = 2.52	2.52
	c. Pharmacy:	
	(1) Tagamet (120 300-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 30.88	
	33.51	33.51
	(2) Mylanta (6 bottles)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.84	
	4.47	4.47
		$138.75

APPENDIX C

IN-HOUSE COST PER TEST

APPENDIX C

COST PER TEST (IN-HOUSE)

Automated Chemistry:

SMAC Profile	$ 5.32
Acid Phosphatase	6.08
Lipase	5.71
Magnesium	5.58

Urinalysis, complete	3.34

Radioimmunoassay:

B-HCG Quant	10.14
B-HCG Qual	1.84
Cortisol	5.75
HBsAg	5.16
Anti HBc	6.41
Anti HBs	6.86
HBeAg	7.79
Anti HBe	7.79
T4	3.41
T3U	3.17
FTI	0.58
TSH	4.26
T3RIA	3.73
B12/Folate Profile	10.17

Toxicology:

Autopsy	264.00
Acetaminophen	11.31
Alcohol, ethyl	3.76
Alcohol, isopropyl	10.84
Alcohol, methyl	10.84
Amitriptyline	11.31
Bromide	8.29
Benzodiazepines(serum)	7.74
Calcium	3.75
Cannabinoids	7.74
Carbamazepine(Tegretol)	6.15
Carbon Monixide	3.10
Chlordiazepoxide(Librium)	7.54
Cocaine	7.74
Diazepam(Valium)	11.79
Digoxin	5.03
Drug Screen(Negative)	19.54

Toxicology - Continued:

Drug Screen
(Confirm for each positive — $ 16.34
includes:

Phencyclidine	Morphine	Phenytoin
Amphetamine	Haldol	Phenylpropanolamine
Codeine	Nicotine	Tofanil
Lidocaine	Phenobarbital	Phenothiazines,
Demerol	Secobarbital	Salicylates;
Quinidine	Butalbarbital	Cogentin

Fluoride	3.7[illegible]
Gentamycin	4.62
Heavy Metal Screen includes:	4.97

Arsenic	Antimony
Mercury	Bismuth

Lead	13.86
Lidocaine	11.51
Lithium	2.94
Methotrexate	11.31
Mysoline(Primidone)	7.40
N-acetylprocainamide	7.40
Procainamide	7.40
Phenobarbital(serum)	5.48
Phencyclidine(serum)	8.37
Phenytoin (Dilantin)	4.82
Propoxyphene (Darvon)	14.28
Quinidine	4.48
Salicylates	5.08
Theophylline	3.88
Valproic Acid (Depakene)	11.51

Special Chemistry:

Urine Protein	4.[illegible]1
[illegible]	17.[illegible]
Hemoglobin A_1C	8.72
Lipid Profile	10.99
17 Ketosteroids	13.9[illegible]
17 Hydroxysteroids	13.9[illegible]
[illegible]	2.[illegible]
Porphyrin Screen	15.67
Porphobilinogen, Qual	16.25
Sweat Chloride	22.1[illegible]
Osmolality	10.01

A/B Lab - ACA:

Albumin	$ 4.01
Alcohol(medical)	6.08
Alk Phos	2.04
Amylase	5.49
Ammonia	6.30
BUN	2.31
Calcium	3.33
CPP	4.15
Creatinine Kinase	4.07
Creatinine	2.43
Digoxin	10.80
Glucose	2.77
GOT	2.52
GPT	3.17
Gamma Glytamyl Transpeptidase	3.61
Iron	12.45
Lactic Acid	4.00
Lactate Dehydrogenase	2.91
Magnesium	5.58
N-Bilirubin	3.06
Phenobarb	6.61
Phenytoin (Dilantin)	32.16
Quinidine	17.38
Salicylates	7.50
T-Bilirubin	2.92
Theophylline	15.10
Uric Acid	6.02
Carbamazepine	15.32

ASTRA:

Sodium	0.91
Potassium	0.91
Chloride	0.91
Carbon Dioxide	0.91
Glucose	0.91
BUN	0.91
Creatinine	0.91

Hematology:

Bleeding Time	7.93
Platelet Aggregation	18.40
Prothrombin Time (Koagulab)	1.84
Activated Partial Thromboplastin Time	2.04
Fibrinogen	4.57
Thrombin	6.72
CBC-(H-6000)	3.20

Hematology - Continued:

CBC (Coulter)	$ 5.56
Hct	4.73
Bone Marrows	11.13
Nasal Smears	1.53
Platelet Count (Manual)	4.52
Reticulocyte	3.88
Sedimentation Rate (Winthrob)	1.80
Sedimentation Rate (Westegren)	2.01
L.E. Prep	11.94
Heinz Bodies	4.42
Osmotic Fragility	50.15
Semen Analysis	7.86
Pres. of Sperm	5.42
Fructose	5.10
Sudan Black	6.48
PAS	11.96
Esterase	10.24
Fetal Hgb	5.84
Peroxidase	3.19
Acid P'tase	6.28
Buffy Coat	3.80
Manual Differential	3.70
LAP	11.94

Bacteriology:

Throat Culture (Negative)	2.60
Throat Culture (Positive)	4.90
Urine Culture (Negative)	4.00
Urine Culture (Positive w/sens.)	9.30
Stool Culture	6.95
Sputum	4.40
Blood Culture	11.40
Blood Culture (Resin Btl)	20.80
Wound Culture	5.15
CSF Culture	5.80
Anaerobe Culture	4.70
Gonorrhea Culture	3.15
Gram Neg Rod ID and MIC	10.59
Gram Pos Coccus ID and MIC	8.35
Haemophilus ID and Serotype	4.25
Autoclave Spore Strip	0.65
Shigella ID/serogroup	12.60
Salmonella ID/serotype	19.95
CSF Latex Agglutination	38.60

Immunology:

Alpha 1-antitrypsin	$ 3.65
CEA	15.10
Ferritin	5.60
Complement C3	3.65
Complement C4	3.65
CK isoenzyme	3.80
C Reactive Protein (CRP)	3.80
Cryofibrinogen	7.75
Haptoglobin	3.70
Hemoglobin	7.70
Hemoglobin-Sickle group	11.70
Immunoelectrophoresis	27.75
Immunoglobulins IgG, A, or M (each)	3.65
IgE	8.45
LDH isoenzyme	3.70
Protein electrophoresis (serum)	5.25
Protein electrophoresis (urine)	8.60
Radioallergosorbent (RAST)per allergy	8.45

Serology:

Anti-Nuclear Antibody (ANA)	3.25
Anti-DNA Antibody	3.50
Extractable Nuclear antibody, SM	5.25
" " " RNP	5.25
" " " SS-A	5.75
SS-B	5.75
" " " SCL-70	11.75
Cold Agglutinins	2.25
Fluorescent Treponemal Antibody (FTA-ABS)	3.00
Mononucleosis	2.50
Mitochondrial Antibody	3.75
Rheumatoid Arthritis	2.00
Smooth Muscle Antibody	3.75
Parietal Cell Antibody	3.75
Streptozyme	3.00
Thyroid Antibody	4.00
VDRL	2.00

Mycobacteriology (TB):

AFB Smear	3.60
AFB Smear and Culture	6.75
Acid Fast identification (speciation)	7.35
Mycobacterial susceptibility battery	12.10

Mycology:

Fungal Smear (KOH)	2.30
Fungal Smear PAS	3.25
Fungal Culture	5.25
Fungal Smear and Culture	8.65
Fungal Identification (speciation)	6.85
Yeast Identification (speciation)	21.70
Latex Agglutination for Coccidioides Antibody	7.85
Latex Agglutination for Cryptococcus Antigen	7.55
Immunodiffusion for HISTO, BLASTO, COCCI Antibody	17.10

Viral Isolation:

Acute Respiratory Disease(ARD) virus culture-Negative	15.25
Acute Respiratory Disease (ARD) Adenovirus isolated	25.30
Acute Respiratory Disease (ARD) Influenza isolated	6.35
Enteric Virus Culture - Negative	12.60
Enteric Virus isolated/serotyped	27.85
Cytomegalovirus (CMV) Culture-Neg.	10.20
" " " -Pos(FA)	12.60
Herpes Culture - Negative	8.85
Herpes Culture - Positive	9.45
Chlamydia Culture	9.70

Viral Serology:

Complement Fixation - per antigen	8.00
Enzyme Immunoassay - per antigen	8.05
Hemagglutination Inhibitors	5.90
Passive Hemagglutination	6.75
Direct FA for viral antigen	5.95
Indirect Fluorescent Antibody(IFA)	5.90

Parasitology:

Macro Exam	2.00
Occult Blood	2.00
Direct Prep	2.00
Concentration	2.00
Wet Mount	2.00
PVA/Trichrome	3.25
Blood Smear	5.00
Immunodiffusion	3.50
Counterimmunoelectrophoresis(screen)	7.00

APPENDIX D

MODIFICATION OF COST DATA

APPENDIX D

Test	(a) CAP Value	(b) CAP Value x .63	(c) Cost Calculated by Pathology	(d) Adjusted Cost (c)+.15(a)
Glucose, Blood	2.2	1.39	1.82	2.15
Complete Blood Count (CBC)	4.0	2.52	5.56	6.16
Sputum Culture	10.0	6.30	4.40	5.90
KOH (Wet Mount)	7.5	4.73	2.30	3.43
SMAC-20	2.6	1.64	3.63	4.02
ASTRA-8 (SMA-6)	2.9	1.83	6.37	6.81
Liver Function Test (Bilirubin)	3.0	1.89	2.92	3.37
Urinalysis, Complete	6.0	3.78	3.34	4.24
Urine Culture	8.5	5.36	4.00*	5.28
Throat Culture	7.7	4.85	2.60**	3.76
T_3 Uptake	7.0	4.41	3.17	4.22
Thyroxin (T_4)	7.0	4.41	3.41	4.46
Thyroid Stimulating Hormone (TSH)	7.0	4.41	4.26	5.31
CBC with Reticulocyte Count	9.0	5.67	9.44	10.79
Hepatitis A Screen	12.0	7.56	5.16	6.96
Hepatitis B Screen	12.0	7.56	7.79	9.59

*9.30 if positive Urine Culture
**4.90 if positive Throat Culture

APPENDIX E

RECOMPUTATION OF COSTS

APPENDIX E

Patient #1:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Sinequan (180 25-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 12.15	
	14.78	14.78
		$36.47

Patient #2:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Bellergal (90 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 17.25	
	19.88	19.88
	(2) Chloratrimatin (60 4-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .11	
	2.74	2.74
	b. Clinical Pathology:	
	(1) Fasting Blood Sugar	2.15
	(2) Two-Hour Postprandial Glucose	2.15
		$55.40

Patient #3:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Complete Blood Count	6.16
		$27.85

Patient #4:

1.	Average Overhead Expense	$ 14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Radiology:	
	(1) OB Ultrasound	
	Weighted Value = 13	
	Cost per W.V. = 8.13	
	13 x 8.13 = 105.69	105.69
		$134.17

Patient #5:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 Minutes)	13.58
3.	Ancillary Services:	
	a. Pharmacy	
	(1) Chlortrimatin (90 4-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .17	
	2.80	2.80
		$31.28

Patient #6:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
		$21.69

Patient #7:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (5 minutes)	3.39
		$18.29

Patient #8:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Tolectin DS (60 400-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 10.80	
	13.43	13.43
	(2) Thiamine (30 50-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .22	
	2.85	2.85
	(3) Maalox (6 bottles)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 2.77	
	5.40	5.40
	(4) Gaviscon (150 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 6.25	
	8.88	8.88
		$59.04

Patient #9:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Cardiazem (120 60-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 31.80	
	34.43	34.43
		$59.51

Patient #10:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (10 minutes)	6.79
		$21.69

Patient #11:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
a.	Radiology:	
(1)	Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
b.	Clinical Pathology:	
(1)	Sputum Culture	5.90
(2)	KOH (Wet Mount)	3.43
c.	Pharmacy:	
(1)	Tetracycline (80 250-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.82	
	4.45	4.45
(2)	Monistat Cream	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 4.49	
	7.12	7.12
		$69.32

Patient #12:

1.	Average Overhead Expense	$ 14.90
2.	Physician #2 (30 minutes)	20.36
3.	Ancillary Services:	
	a. Radiology:	
	(1) Mammogram	
	Weighted Value = 7	
	Cost per W.V. = 8.13	
	8.13 x 7 = 56.91	56.91
	b. Clinical Pathology:	
	(1) Complete Blood Count	6.16
	(2) SMAC	4.02
	c. Pharmacy:	
	(1) Estrogen Cream	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.41	
	8.04	8.04
	(2) Salicylic Acid Plasters	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 11.83	
	14.46	14.46
		$124.85

Patient #13:

1.	Average Overhead Expense	$ 14.90
2.	Physician #2 (25 minutes)	17.38
3.	Ancillary Services:	
	a. Radiology:	
	(1) X-Ray Abdomen	
	Weighted Value = 6	
	Cost per W.V. = 8.13	
	8.13 x 6 = 48.78	48.78
	b. Clinical Pathology:	
	(1) Complete Blood Count	6.16
	(2) SMA-6	6.81
	(3) Liver Function Test	3.37
	(4) Urinalysis	4.24
	c. Pharmacy:	
	(1) Bentyl (90 20-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .95	
	3.58	3.58
		$105.22

Patient #14:

1.	Average Overhead Expense	$ 14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Fasting SMAC	4.02
	b. Nuclear Medicine	
	(1) MUGA	
	Weighted Value = 200	
	Cost per W.V. = 1.70	
	1.70 x 200 = 340	340.00
		$372.50

Patient #15:

1.	Average Overhead Expense	$14.90
2.	Physician #2 (20 minutes)	13.58
3.	Ancillary Services:	
a.	Radiology:	
(1)	Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
b.	Clinical Pathology.	
(1)	KOH (Wet Mount)	3.43
(2)	Complete Blood Count	6.16
(3)	SMAC	4.02
(4)	Urine Culture	5.28
(5)	Thyroid Function Test (T_4)	4.46
c.	Anatomical Pathology:	
(1)	Pelvic PAP	
	Weighted Value = 15	
	Cost per W.V. = .91	
	.91 x 15 = 13.65	13.65
d.	Pharmacy:	
(1)	Flagyl (2 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .25	
	2.88	2.88
(2)	Slo-Bid (60 200-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 2.70	
	5.33	5.33
		$98.08

Patient #16:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (40 minutes)	31.25
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Complete Blood Count	6.16
	(2) Urinalysis	4.24
	b. Pharmacy:	
	(1) Dantrium	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 22.59	
	25.22	25.22
		$81.77

Patient #17:

1.	Average Overhead Expense	$ 14.90
2.	Physician #1 (60 minutes)	46.88
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	(2) Barium Swallow	
	Weighted Value = 7	
	Cost per W.V. = 8.13	
	8.13 x 7 = 56.91	56.91
	b. EKG	6.18
	c. Pharmacy	
	(1) Slo-Bid (60 300-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 2.80	
	5.43	5.43
		$154.69

Patient #18:

1. Average Overhead Expense	$14.90
2. Physician #1 (10 minutes)	7.81
	$22.71

Patient #19:

1. Average Overhead Expense	$14.90
2. Physician #1 (5 minutes)	3.91
	$18.81

Patient #20:

1. Average Overhead Expense	$14.90
2. Physician #1 (45 minutes)	35.16
3. Ancillary Services:	
a. EKG	6.18
	$56.24

Patient #21:

1. Average Overhead Expense	$14.90
2. Physician #1 (15 minutes)	11.72
	$26.62

Patient #22:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (20 minutes)	15.63
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	b. Clinical Pathology:	
	(1) SMAC-20	4.02
	(2) Urinalysis	4.24
	c. EKG	6.18
		$69.36

Patient #23:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (20 minutes)	15.63
		$30.53

Patient #24:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (25 minutes)	19.53
		$34.43

Patient #25:

1.	Average Overhead Expense	$ 14.90
2.	Physician #1 (75 minutes)	58.60
3.	Ancillary Services:	
	a. Radiology:	
	(1) Chest X-Ray	
	Weighted Value = 3	
	Cost per W.V. = 8.13	
	8.13 x 3 = 24.39	24.39
	b. Clinical Pathology:	
	(1) SMAC-20	4.02
	(2) Complete Blood Count	6.16
	(3) Thyroid Function Test (T_3)	4.22
	(4) Thyroid Function Test (T_4)	4.46
	(5) TSH	5.31
		$122.06

Patient #26:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (15 minutes)	11.72
3.	Ancillary Services:	
	a. Radiology:	
	(1) Sinus Series (Paranasal)	
	Weighted Value = 5	
	Cost per W.V. = 8.13	
	8.13 x 5 = 40.65	40.65
	b. Pharmacy:	
	(1) Sudafed (40 30-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .14	
	2.77	2.77
	(2) Fiorinal (15 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .45	
	3.08	3.08
		$73.12

Patient #27:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (25 minutes)	19.53
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Feldine (30 20-mg capsules)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 21.90	
	24.53	24.53
	(2) Flexeril (25 10-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 7.38	
	10.01	10.01
		$68.97

Patient #28:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (15 minutes)	11.72
		$26.62

Patient #29:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (20 minutes)	15.63
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Sudafed (40 30-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .14	
	2.79	2.79
	(2) Inderal (60 40-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.52	
	8.15	8.15
	(3) Tagamet (30 300-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 7.75	
	10.38	10.38
		$51.85

Patient #30:

1.	Average Overhead Expense	$14.90
2.	Physician #1 (15 minutes)	11.72
3.	Ancillary Services:	
	a. Radiology:	
	(1) Barium Swallow	
	Weighted Value = 7	
	Cost per W.V. = 8.13	
	8.13 x 7 = 56.91	56.91
		$83.53

Patient #31:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy	
	(1) Catapres (120 .2-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 15.84	
	18.47	18.47
		$43.55

Patient #32:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) CBC with Reticular Count	10.79
	(2) SMA-20	4.02
		$36.50

Patient #33:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Urine Culture	5.28
	b. Pharmacy:	
	(1) Urised (100 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 11.20	
	13.83	13.83
		$44.19

Patient #34:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Bacitracin Ointment	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .30	
	2.93	2.93
		$28.01

Patient #35:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Bentyl (50 20-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .53	
	3.16	3.16
	(2) Tylenol #3 (15 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug .75	
	3.38	3.38
		$31.62

Patient #36:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (30 minutes)	20.36
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) SMA-20	4.02
	(2) Hepatitis A and B Screen	16.55
		$55.83

Patient #37:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) CBC with Reticular Count	10.79
	(2) SMA-20	4.02
	b. Pharmacy:	
	(1) Maalox (6 bottles)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 2.77	
	5.40	5.40
		$45.29

Patient #38:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (25 minutes)	16.96
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Annusol Cream	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.46	
	8.09	8.09
		$39.95

Patient #39:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Throat Culture	3.76
	b. Pharmacy:	
	(1) Wonder Gargle	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.80	
	4.43	4.43
	(2) Penicillin	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.82	
	4.45	4.45
		$34.33

Patient #40:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Elavil (30 75-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .69	
	3.32	3.32
	(2) Ampicillin (500 mg)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.96	
	8.59	8.59
	(3) Beconase Inhaler	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 5.86	
	8.49	8.49
		$48.87

Patient #41:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Tenormin (30 50-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 8.22	
	10.85	10.85
		$35.93

Patient #42:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Urine Culture	5.28
		$26.97

Patient #43:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #44:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Dyazide (civilian pharmacy - no expense to Eisenhower Army Medical Center)	
		$25.08

Patient #45:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
		$28.47

Patient #46:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #47:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #48:

1.	Average Overhead Expense		$14.90
2.	Physician #3 (5 minutes)		3.39
3.	Ancillary Services:		
	a. Pharmacy:		
	(1) Bacitracin Ointment		
	Pharmacy Overhead =	2.63	
	Cost of Drug =	.30	
		2.93	2.93
			$21.22

Patient #49:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (7.5 minutes)	5.09
		$19.99

Patient #50:

1.	Average Overhead Expense	$ 14.90
2.	Physician #3 (30 minutes)	20.36
3.	Ancillary Services:	
	a. Radiology:	
	(1) X-Ray, Acute Abdominal Series	
	Weighted Value = 6	
	Cost per W.V. = 8.13	
	8.13 x 6 = 48.78	48.78
	(2) Barium Enema	
	Weighted Value = 9	
	Cost per W.V. = 8.13	
	8.13 x 9 = 73.17	73.17
	(3) Ultrasound of Aorta	
	Weighted Value = 13	
	Cost per W.V. = 8.13	
	8.13 x 13 = 105.69	105.69
	b. Clinical Pathology:	
	(1) Complete Blood Count	6.16
		$269.06

Patient #51:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (7.5 minutes)	5.09
		$19.99

Patient #52:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
3.	Ancillary Services:	
	a. Clinical Pathology:	
	(1) Complete Blood Count	6.16
	(2) SMA-6	6.81
		$41.44

Patient #53:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Chlortrimatin (50 4-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = .14	
	2.77	2.77
	(2) Ampicillin (40 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug .79	
	3.42	3.42
		$27.88

Patient #54:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (10 minutes)	6.79
		$21.69

Patient #55:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (30 minutes)	20.36
		$35.26

Patient #56:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Pharmacy:	
	(1) Codeine (50 tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 3.50	
	6.13	6.13
	(2) Inderal (60 80-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 12.12	
	14.75	14.75
		$45.96

Patient #57:

1.	Average Overhead Expense	$14.90
2.	Physician #3 (20 minutes)	13.57
		$28.47

Patient #58:

1.	Average Overhead Expense	$ 14.90
2.	Physician #3 (15 minutes)	10.18
3.	Ancillary Services:	
	a. Radiology:	
	(1) Barium Enema	
	Weighted Value = 9	
	Cost per W.V. = 8.13	
	8.13 x 9 = 73.17	73.17
	b. Clinical Pathology:	
	(1) Complete Blood Count	6.16
	c. Pharmacy:	
	(1) Tagamet (120 300-mg tablets)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 30.88	
	33.51	33.51
	(2) Mylanta (6 bottles)	
	Pharmacy Overhead = 2.63	
	Cost of Drug = 1.84	
	4.47	4.47
		$142.39

ENDNOTES

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[5]Howard J. Berman and Lewis E. Weeks, The Financial Management of Hospitals, 5th ed. (Ann Arbor, MI: Health Administration Press, 1982), pp. 123-144.

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[9]Department of Defense Uniform Chart of Accounts for Fixed Medical and Dental Treatment Facilities, DOD 6010.10-M. Office of the Assistant Secretary of Defense (Health Affairs), 1979.

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[14]Ibid.

[15]Ibid, p. 1.

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