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Lieutenant Leslie A. Moore, Medical Service Corps

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Naval Medical Center San Diego
San Diego, CA 92134-5000

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Identification of Variables Predictive of Payment in Full of Third Party Outpatient Claims

A Graduate Management Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

of

Master of Health Administration

by

Lieutenant Leslie A. Moore, MSC, USN,CHE

May 1996

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ABSTRACT

The purpose of this study was to determine, using multiple discriminant analysis, the effects of the predictor variables, CPT (grouped to make visit type) codes, specific third party payers, and the number of claims, on payment in full of third party outpatient billings at Naval Medical Center San Diego, for fiscal year 1994.

Two random samples were extracted from the Third Party Collection database. One sample (N=147) consisted of those bills which were paid in full; the other (N=150) was made up of those bills which were not paid in full. Discriminant function analysis was used to distinguish among the groups, based on the predictor variables. Stepwise multiple regression was then employed to determine the contribution of the variables to payment in full.

Results of the study indicate that the third party payer is a significant predictor of payment in full. However, nearly 77 percent of the claims not paid in full are due to deductibles which have not been met and require copayments; both are situations over which military treatment facilities have no control.

The main implication of this study is that particular third party payers are more likely than others to pay a claim in full. The relationships with these payers should be cultivated in an attempt to recoup as much outpatient visit charges as possible. All facility staff coming into contact with patients must maintain a conscientious effort to identify patients with third party payers. Further, the staff must ensure maximum compliance with the Third Party Program initiatives in order to collect whenever the opportunity is present.

I. INTRODUCTION

Conditions That Prompted the Study

Post-cold war military planning called for a reduction in the size of the uniformed forces in an effort to reduce spending. Resultingly, the military is facing a 25 percent overall reduction in personnel, increasing costs, and tighter budgets, but only a nine percent reduction in beneficiaries (Southby, 1993). In June 1994, approximately 8.6 million people were eligible for medical care - 1.9 million active-duty members and 6.7 million nonactive-duty beneficiaries (Baine, Backhus, Williams, and Weldon, 1994).

In an effort to confront the significant changes and challenges taking place, the Department of Defense's (DoD) military health care system is developing and implementing several initiatives aimed at cutting costs without cutting services. This is a daunting challenge as the DoD is both one of the nation's largest health care providers as well as a payer for care for millions of military beneficiaries (Baine, 1991). One area which allows the DoD health

care system to recapture dollars for services rendered, is third party insurance recovery.

Title 10 United States Code, Section 1095, amended in 1991 authorizes the DoD hospitals to bill private insurance companies for health care services provided to uniform services dependents and retirees. The program is designed to bring in additional revenues to the hospital without any additional charges being incurred by our beneficiaries. Patients are not required to pay any deductibles or copayments and all additional revenues will come solely from the private health insurance companies.

Under the Medical Care Recovery Act (MCRA), Title 42 United States Code, Sections 2651-2653 and Title 10 United States Code, Section 1095, amended in 1990, the Department of Defense is entitled to recover the reasonable cost of medical treatment provided to its' beneficiaries for injuries or illnesses caused by the negligence of another individual. The MCRA Claims Division of the Naval Legal Service Office is responsible for pursuing these claims on behalf of the medical treatment facilities. All medical costs recovered by the Naval Legal Service Office are

returned to the military treatment facility (MTF) which provided the care.

In accordance with Title 10, United States Code, Section 1095, amended in 1991, as well as various military instructions/regulations, Military Treatment Facilities are not only authorized, but mandated to bill commercial, private insurance companies for health care these facilities provide to uniformed services beneficiaries (Department of Defense, 1993; Department of the Navy, 1993; Department of the Navy, 1994). Further, it is the policy of the Department of Defense to collect from third party payers to the fullest extent allowed by law (Department of Defense, 1993).

The Consolidated Omnibus Budget Reconciliation Act of 1986 (COBRA) authorized collection for reasonable health care costs incurred by many military health care beneficiaries. In 1986 the program was called "Coordination of Benefits," and allowed only for collection against inpatient care. At that time, the law required that funds billed by the MTF for insurance coverage be deposited to the U.S. Treasury. Six years later, outpatient care became reimbursable.

Collection for outpatient visits became effective on 1 October 1992 and presently, the law allows collected funds to be returned to the Operating and Maintenance, Navy (O&M,N) accounts of the MTF providing the treatment, instead of the U.S. Treasury, as was the previous practice.

Naval Medical Center San Diego (NMCSD) opened its business office in 1992 (fiscal year 1993) and began billing for outpatient services that same year. Outpatient collections for the first year were $215,101.44 (Washington, 1995). By fiscal year 1994, the Third Party Collections Program, as the revamped program is called, was well underway. Despite the efforts of the staffs of both the clinics and the business office, payment in full of a bill for an outpatient clinic visit was poor; only 12.6% of outpatient bills collected payment in full. In contrast, 34.6% of the same day surgery bills were paid in full. Thus, the impetus for this study.

Statement of the Problem

No one at Naval Medical Center San Diego has studied the factors contributing to payment in full of

submitted claims, rather, the effort has been to increase the number of claims submitted on the whole.

With the hospital's operating budget being decremented to offset the expected income from third party collections, the hospital cannot afford to settle for less than payment in full whenever possible. If there are changes which can be implemented to increase the success rate of payment in full, the staff of the Third Party Collection Program must attempt to identify and target them. If there are indeed predictor variables, they can be more closely scrutinized in an attempt to increase the collection rate and thus provide more money to contribute to mission achievement.

Literature Review

Currently, the United States spends nearly 14 percent of the nation's Gross Domestic Product on health care - a fair amount above that of some other countries. Comparatively, in 1991, when Americans spent 13.4 percent, Canadians, Germans, and the Japanese spent 10 percent, 8.5 percent, and 6.6 percent respectively (Davis, 1995). Meanwhile, the national

spending for health care in this country grew an average of 12.4 percent per year from 1970 to 1991 (Knickman and Thorpe, 1995). Further, our expenditure is projected to increase to 18 percent by the close of the century (Davis, 1995).

Just what is known about the American population in terms of health insurance? We know that approximately 14 percent of all Americans are uninsured. We also know that about half of the uninsured remain so for at least two years and that only 7 percent of the uninsured are uninsured by choice. Since employers tend to be our link with health plans, one might be surprised to learn that 84 percent of all of the uninsured are employed full- or part-time for at least part of the year (Davis, 1995). Part of this figure can be explained by the estimate that about 51 percent of the uninsured work for a firm which does not provide insurance (Morrisey, Jensen, and Morlock, 1994).

Estimates on the government's share of health expenditures vary. Some estimate that more than half of health care expenditures are historically borne by the government (Data Line, 1990), where as others put

it slightly lower at 43 percent (Knickman and Thorpe, 1995). Most agree, however, that the majority of private health care remunerations come from either private insurers or the individuals receiving treatment (Data Line, 1990) (Knickman and Thorpe, 1995). Just what kinds and types of health insurance exist, how does one obtain coverage, and how does health insurance operate?

The first "sickness" insurance appeared in 1847, but the insurance industry paid very little attention to health insurance until after World War II (Rakich, Longest, and Darr, 1992). The original policies were basically add-ons on accident insurance policies and were intended mainly to facilitate the replacement of lost income (Health Insurance Institute, 1975).

When Blue Cross began operations in the 1930s, it provided what was called a "service" benefit for hospital care. Under such a plan, the company totally reimbursed the hospital for a patient's stay (up to a maximum period). The patient did not share in any of the cost. This approach pleased the hospitals because they were fully reimbursed and patients had no incentive to shop for a less expensive hospital.

However, such a plan also encouraged hospital inpatient care, rather than another less expensive but equally appropriate care setting, because it only paid for hospital provided care (Feldstein, 1993); today, outpatient care is the preferred method of health care delivery.

Much of inpatient care has given way to ambulatory care (Lobas, Lepinski, and Abramowitz, 1992). Quite often an ambulatory care encounter is the first contact a patient has with the health care system and it is often the point of contact for continuing care.

Ambulatory Care

Ambulatory care consists of a large range of services which can be provided to patients who do not have to be hospitalized. The care can range from treating a common cold to providing surgical services. In fact, by 1990 ambulatory surgery accounted for just over half of the procedures performed in hospitals. In that year, there were 11.1 million in-hospital procedures performed and another 2.3 million performed in ambulatory surgery centers (Mangano, 1993).

Stand-alone ambulatory surgery centers have proven themselves to be cost-effective, with facility fees

running about half of those in a hospital setting (Vaughan, Aluise, and McLaughlin, 1991). Part of this reduced cost results from the care setting. Ambulatory care can be provided in a variety of settings from patients' homes to traditional hospital settings - with many alternatives in between.

Outpatient care has become so prevalent that ambulatory care is currently the only growth area among hospital-based services. Hospital outpatient visits now outnumber the acute care inpatient days in this country. The American Hospital Association reports that ambulatory care providers, in a free-standing setting, doubled between 1980 and 1990. And, total hospital outpatient revenue went from 12 percent in 1983 to 33 percent in 1992 - this number is expected to grow to 50 percent by the year 2000 (McGuire, 1994). Most people pay for this care through some form of insurance.

Kinds of Insurance

Other than self-insurance, where one pays for all health care entirely from one's own funds, there are three ways to obtain health insurance: belong to a group plan, pay premiums for an individual plan, or

enroll in a prepaid health plan. A group plan is one where a group of employees or some other homogeneous group, like members of a professional organization, is insured under a single policy issued to the employer, with individual certificates given to each insured individual or family.

Generally, a group policy provides better benefits and lower premiums than does an individual policy. If the policy has that which is called a conversion privilege, the member may convert to an individual policy if the member leaves the employer or organization. Normally, with a conversion, the premium is increased and the benefits lowered. However, if the individual has developed a condition which would preclude the member from getting other coverage, or would be considered a high risk to insurers, conversion is still a good idea because no physical is required, therefore a pre-existing condition cannot be excluded.

An individual plan is one which is issued to the individual and any dependents. This kind of insurance tends to be quite expensive and has somewhat lower benefits than in a group policy. Sometimes this kind of policy is also referred to as personal insurance.

A prepaid health plan is a program in which a group of enrolled beneficiaries pay fixed periodic payments. The health care services are then provided by a group of participating physicians. A health maintenance organization, which delivers care on a capitated basis, rather than fee-for-service, is an example of this kind of program.

Types of Insurance

There are many *types* of insurance coverage which fall under the three *kinds* described above. A wide range of insurance policies can be purchased; from life insurance to aviation trip insurance and most anything in between.

Commercial insurance is provided mostly to groups of employees as part of fringe-benefits packages. One example of commercial insurance is what is commonly referred to as 'The Blues'; Blue Cross and Blue Shield. Blue Cross mainly offers hospitalization coverage. Blue Shield, on the other hand, mostly offers insurance for physician's services in an inpatient setting with a limited amount of office-based care coverage (Knickman and Thorpe, 1995).

Comprehensive major medical insurance is one which offers the protection of both a basic and major medical health insurance policy. Major medical expense insurance is one in which the expense of major illnesses or injuries are financed. Major medical expense insurance, like many other types of insurance, usually includes a deductible.

Deductibles and Coinsurance

A deductible is an amount which the insured must pay before the insurer will assume any liability for any remaining costs of covered services. For example, a $100 deductible requires that a beneficiary pay $100 toward his individual care before benefits will be paid for his claims. Deductibles typically range between $100 and $300 (Kongstvedt, 1995). A deductible differs from coinsurance or cost sharing.

Coinsurance is basically a cost-sharing requirement under a health insurance policy that provides that the insured will assume a percentage of the costs of covered services. Typically the insurance company will assume 80% of the bill with the remainder to be paid by the beneficiary (Kongstvedt, 1995). More than half of all group/staff health maintenance

organizations require copayments for their providers' services (Marmor, 1994). Both deductibles and coinsurance are factors that play a big part in reimbursements; so does coding.

Coding

Coding is the process of transferring the narrative description of diseases, injuries, and procedures into numeric designations. The American Medical Association publishes a book each year containing the five digit codes. It is a systematic listing and coding of procedures and services performed by physicians ("CPT '95," 1994). This process has been taking place since 1966 (Zuber and Henley, 1992), but in the past ten years, it has become significant in determining hospital payment.

Before the prospective payment system was implemented, International Classification of Diseases, 9th Edition, Clinical Modification (ICD-9-CM) codes that had been previously recorded, were used to determine the DRG reimbursement system. This was a foreshadowing of the use of today's ICD-9-CM and Current Procedural Terminology (CPT) data to determine ambulatory surgery and physician's services in the

future. In the outpatient setting, a prospective payment system is in development.

It is expected that a combination of Ambulatory Patient Groups and the Product of Ambulatory Care will be used to define the amount and type of resources used. In general, where coding is concerned, to get the highest reimbursement, coding must be accurate as the most specific code results in the highest payment (Kost, Muller, and Smith, 1993).

Hospitals, like any other viable business entity, must be able to capture the use of its services so that a charge can occur. With health insurance, once the use itself is captured, certain processes must take place before a billing can take place. In particular, a third-party payer's requirements for documentation and procedure coding, as previously detailed, must be satisfactorily accomplished in order to avoid payment delays or even worse, denials (Thompson and Barrett, 1993).

Currently, the typical private provider can expect to receive only 80 percent of the billed fee for an office visit. Not surprisingly, the fees are characteristically highest in the West and lowest in

the Midwest. In the West, the typical fee for a new patient's office visit is $120 and $95 for the Midwest patient (Crane, 1995).

Purpose, Objectives, and Working Hypotheses

The purpose of this study is to determine the relationship between specific groups of CPT (visit type) codes specific third party payers, the number of claims and payment in full of the third party outpatient billings at Naval Medical Center San Diego for fiscal year 1994.

The objective of this study was to determine whether or not there are particular variables which are more predictive than others of payment in full. An initial milestone en route to this objective, was a full literature review with regard to outpatient care in the areas of insurance, various types of coverage, and the billing and reimbursement of claims.

Upon meeting the forgoing objective and associated milestones, another objective was to develop, explore, and present any possible recommendations to enable the facility to maximize the potential for full reimbursement of third party outpatient care claims.

HO_1: There is no systematic relationship between payment in full and visit type code.

HA_1: A systematic relationship between payment in full and visit type code does exist.

HO_2: There is no systematic relationship between payment in full and the number of claims submitted.

HA_2: A systematic relationship between payment in full and the number of claims submitted does exist.

HO_3: There is no systematic relationship between payment in full and the third party payer.

HA_3: A systematic relationship between payment in full and the third party payer does exist.

II. Method and procedures

Population

The first step in the study was to gather the people, objects, and events to be studied. In order to determine the relationship between the visit type codes, third party payers, number of claims and payment in full status, a retrospective analysis of a twelve-

month period (fiscal year 1994), of outpatient collections was conducted. The Business Office, which is part of the Fiscal Department, maintains an appropriate database, Third Party Outpatient Collections (TPOC), and a twelve-month period constituting fiscal year 1994 is available.

The database was scrutinized to ensure records with identifiable errors or disqualifying data were not used. Excluded were those records not within the specified time frame. Additionally, those records which did not contain all the required data were excluded as were those which contained conflicting data. One example of conflicting data was where within a single claim, one transaction code reflected a write-off due to a remaining deductible for the patient, and a subsequent write-off transaction code reflected a code which indicated the patient was not covered by the policy; an impossible combination.

Once the screening of the database was completed, the remaining records of the bills generated for outpatient treatment in fiscal year 1994 were reviewed and provided the people, objects, and events for this study.

The database field "Transaction Control Number" was used to identify particular events. Use of this field allowed for complete patient confidentiality as no identifying patient information was used in its formation.

Operationalization of Variables

The dependent variable (Y) was payment in full; the payment received from the third party payer had to be for the full amount billed. Payment in full was a dichotomous variable. There were three independent variables (X).

The visit type code consisted of groups of CPT codes as arranged on various Superbills in use throughout the various services within the facility. A sample Superbill is included as Figure 1. Additionally, various CPT codes were derived from the American Medical Association's CPT Code Book and grouped according to specialty. This variable was coded as categorical.

The third party payer associated with each claim and to whom the claim was sent. Third party payer was a categorical variable.

The number of claims submitted to a particular third party payer, on behalf of a specific beneficiary; this was a continuous variable.

The three control variables consisted of: the patient category; retiree, active duty member's family member, or retiree's family member; the age of the patient; and, the gender of the patient.

The variable gender was coded as a dichotomous variable. The variable age was a continuous variable, and patient category was categorical.

The hypothesized functional relationship was:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6)$$

where

Y = Payment in Full

X_1 = Number of Claims Submitted

X_2 = Visit Type Code

X_3 = Gender

X_4 = Patient Category

X_5 = Third Party Payer

X_6 = Age

Statistical Methodology

Discriminant function analysis (logistical regression) was used to distinguish among the groups, based on the predictor variables. The purpose of using this technique is to allow one to determine which predictors will most clearly distinguish among the given groups. The technique points out the factors most related to the various groups and how well group membership can be predicted (Munro and Page, 1993).

From the population (N=3,942), two groups were formed; paid in full (N=997) and not paid in full (N=2,945). A random sample of 150 transactions (every 20th record) was selected from the not paid in full group and a sample of 142 (every seventh record) was selected from the paid in full group.

Each of the non-continuous variables were recoded (dummy coding 0,1) so as to not give unequal amounts of weight based on the respective categorical designation. For example, seven groups of third party payers were used, one through six being specific payers, with the seventh being a group of all others. The group designated as "6" had no greater weight than group "1" once recoding was accomplished.

Stepwise multiple regression was then utilized to test the effects of individual independent variables while controlling for the effects of the others upon the dependent variable.

The full regression model equation used follows:

$$Y = a_0U + b_1\text{Number of Claims} + b_2\text{Radiology Procedure} + b_3\text{Outpatient Consultation} + b_4\text{Inpatient Consultation} + b_5\text{Office Visit for Established Patient} + b_6\text{Office Visit for New Patient} + b_7\text{Dept of Medicine} + b_8\text{Emergency Dept Services} + b_9\text{Case Management} + b_{10}\text{Surgery Department} + b_{11}\text{Gender} + b_{12}\text{Retiree} + b_{13}\text{Family Member of Retiree} + b_{14}\text{Family Member of Active Duty} + b_{15}\text{APWU} + b_{16}\text{BC FEP} + b_{17}\text{BS PERS CARE} + b_{18}\text{CIGNA 1620} + b_{19}\text{GEHA} + b_{20}\text{MAIL} + b_{21}\text{ALL OTHERS} + b_{22}\text{Age}$$

Reliability and Validity

The reliability of this study is very much dependent upon the data provided by the business office. It is assumed that the data was coded and recorded correctly by the coders and the billers and entered correctly by data entry personnel.

The validity of the dependent variable, payment in full, was measured by the correlation coefficient.

III. Results

Descriptive Statistics

The descriptive statistics for this study are at Table 1. The critical value (2 tail, .05) was +/- .113. Two variables had correlations that exceeded the critical value and were positive: BC FEP (.431), and age (.422). Five variables had correlations that exceeded the critical value and were negative: BS Pers Care (-.115), Cigna 1620 (-.128), Mail (-.281), the group of all Other (-.244) third party payers, and Active Duty Family Member (-.135). The remainder of the variables did not meet the critical value and were eliminated from further consideration and analysis.

Inferential Statistics

The inferential statistics for this study may be found at Table 2. The eight remaining variables used in the final multiple regression subset model accounted for 37.8 percent of the variance of payment in full of third party outpatient billings. The subset model was as follows:

Model	Equation
Step #8	$Y = a_0U + b_{22}$Age + b_5Office Visit for an Established Patient + b_{10}Surgery Department + b_{16}BC FEP + b_{19}GEHA + b_{20}MAIL + b_{21}ALL OTHERS + b_{14}Family Member of Active Duty

Acceptance/Rejection of Hypotheses

HA_1: A systematic relationship between payment in full and Visit Type code does exist. This hypothesis is rejected; in our sample a statistically significant relationship between a Visit Type Code and payment in full was not found.

HA_2: A systematic relationship between payment in full and the number of claims submitted does exist. This hypothesis is rejected; in our sample a statistically significant relationship between the number of claims and payment in full was not found.

HA_3: A systematic relationship between payment in full and the third party payer does exist. This hypothesis is accepted.

IV. Discussion

The purpose of this study was to determine, using multiple discriminant analysis (logistical regression), the effects of the predictor variables, CPT (visit type) codes, specific third party payers, and the number of claims, on payment in full of third party outpatient billings at Naval Medical Center San Diego, for the fiscal year 1994.

The expected result was that at least one of the variables would be a significant predictor of payment in full of third party payer outpatient claims. If such a relationship could be established, the identified predictor(s) could be scrutinized and targeted to maximize the likelihood that payment in

full for third party payer outpatient claims will be received. This study was conducted at a large (>350 bed) military treatment facility and may have implications for other similar military medical treatment facilities.

Analysis of Hypotheses

HA_1: A systematic relationship between payment in full and visit type code does exist. This hypothesis is rejected. A limited number of CPT codes were entered onto the bills; the vast majority of bills contained only one code. Compounding this limited variability of codes is the fact that the most frequently utilized third party payer, BC FEP, has requested the billing office enter only "00000" in place of a CPT code. According to the billing office, the payer is not interested in the CPT code since the billing is a flat amount, no matter the code.

HA_2: A systematic relationship between payment in full and the number of claims does exist. This hypothesis is rejected. The mean age for patients paying in full is more than 73 years (73.415); for non payment in full, almost 60 years (69.640). It was

expected that this variable would be statistically significant. It was anticipated that older patients would have more visits. Thus, the patient would have likely fulfilled any deductible and then incurred fully reimburseable visits. However, this was not the case and with the mean number of claims between five and six (5.732) for both paid and not paid in full, the number of visits was lower than theorized.

HA_3: A systematic relationship between payment in full and third party payer code does exist. This hypothesis is accepted, F (19, 272) = 9.01, $p<.001$. This variable accounts for 16 percent of the variability of payment in full. This indicates a certain percentage of claims will always remain not paid in full. Not only does the particular carrier impact on this variable, but also the type of coverage; some policies are limited to 80 percent payment.

Age as a Significant Correlation

Age. This variable has a statistically significant correlation, F, (1, 290) = 62.84, $p<.001$. Age accounts for almost 18 percent (.178) of the variability of payment in full. This indicates the

elderly are making more visits than the younger patients, but as discussed previously, the mean number of visits is about equal for both payment and non-payment in full. Further, although the elderly may be making more visits, the number of claims submitted is still statistically insignificant within the model.

Non-payment in Full

Reported Reasons for Non-payment in Full.

The reasons for non-payment in full, for the sample, are recorded at Table 3. The lack of a fully paid deductible accounts for just over 31 percent (31.33) of those transactions which were not paid in full. Even more limiting is the fact that forty-five percent (45.33) of the not paid in full records will never be paid in full; the policy requires a co-payment. These two factors together account for almost 77 percent (76.66) of the not paid in full transactions.

V. Recommendations and Conclusions

Recommendations

Recommendation 1: Continue a stepwise refinement of the entire Third Party Collection Program. Ensure that with staff turnover, new personnel are indoctrinated into the beneficiary - third party payer identification process. Ensure that identification and collection has a positive incentive attached for the departments involved; otherwise, the process becomes a disincentive. The importance of the program must continually be emphasized to all personnel. The Staff's compliance with established procedures and ideas for enhancements to the program should be solicited.

Recommendation 2: Initiate a follow-up routine other than just a second billing. Perhaps a phone call follow-up to the high volume third party payers could be tested to see if better performance follows. A time and motion study should be conducted if this effect is considered.

Recommendation 3: Discuss bill preparation with the high volume third party payers. If there is a

particular form a payer prefers, determine if it is possible for the facility to bill on that form. If there is a certain procedure that would make it easier, and therefore, probably faster, for a payer to review and pay a claim, do it if at all possible. Perhaps such a phone call could eliminate the need for a second billing or a correctional billing. The goal is to receive the maximum payment upon presentation of the first bill.

Conclusions

The main implication of this study is that certain third party payers are more likely to pay a claim in full than others. The relationships with these payers should be cultivated in an attempt to recoup as much outpatient visit charges as possible.

Future visits/billings may or may not cause the 31 percent deductible-not-met category into payments in full, one cannot tell without knowing the type of policy in each case. In any event, 45 percent will never enter the fully paid category, because the policy requires a copayment. With nearly 77 percent of the not paid in full transactions currently uncollectible

because the patient may not incur an out-of-pocket expense, there is a very limited chance that the current collection rate can be greatly improved.

Although the Third Party Collection Program is operating under regulatory constraints beyond the control of the facility's governing body, every effort must be made to pursue payment in full whenever the opportunity does present itself; every successful recoupment means more money for our beneficiaries' health care needs.

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LIST OF TABLES

Table 1

Descriptive Statistics

Variable Name	Payment in full		Not Paid in full		Correlation
	Mean	SD	Mean	SD	
Age	73.415	11.804	59.640	17.231	.422*
Number of Claims	5.732	6.740	5.793	8.840	-.004
	n = 142	%	n = 150	%	
Type of Visit					
Radiology	12	8.45	14	9.33	-.015
Outpt Consult	14	9.86	13	8.67	.021
Inpt Consult	0	0	1	.67	-.057
Established Pt	84	59.15	79	52.67	.065
New Patient	14	9.86	17	11.33	-.024
Dept of Medicine	4	2.82	5	3.33	-.015
Emergency Dept	14	9.86	17	11.33	-.024
Case Mgt	0	0	2	1.33	-.081
Surgery Dept	0	0	2	1.33	-.081

Table 1 (continued)

Descriptive Statistics

Variable Name	Payment in full		Not Paid in full		Correlation
	n = 142	%	n = 150	%	
Gender					
Male	78	54.93	74	49.33	.056
Female	64	45.07	76	50.67	-.056
Third Party Payer					
APWU	0	0	2	1.33	-.081
BC FEP	95	66.90	36	24.00	.431*
BS PERS CARE	0	0	4	2.67	-.115*
CIGNA 1620	0	0	5	3.33	-.128*
GEHA	16	11.27	8	5.33	.108
MAIL	5	3.52	34	22.67	-.281*
OTHER	26	18.31	61	40.67	-.244*
Patient Category					
Retiree	78	54.93	72	48.00	.069
Retiree Family Mbr	55	38.73	56	37.33	.014
Active Duty Family Mbr	9	6.34	22	14.67	-.135*

*Critical Value (2 tail, .05) = +/- .113

Table 2

Inferential Statistics

Effect	R^2	$\_R^2$	df1	df2	F	p
Age	.178	.178	1	290	62.836	.001
Gender	.179	.001	2	289	31.558	.001
Pt Category	.201	.022	4	287	18.075	.001
Visit Code	.221	.020	12	279	6.593	.001
Number of Claims	.223	.002	13	278	6.147	.001
Third Party Payers	.386	.163	19	272	9.010	.001

Table 3

Reasons Reported by Third Party Payer for Nonpayment in Full

(N=150)

Reported Reasons	Carrier						
	APWU	BC FEP	BS PERS CARE	CIGNA 1620	GEHA	MAIL	ALL OTHERS
Deductible Not Met	0	13	4	1	0	8	21
Copayment Required	0	21	0	4	7	13	23
Excess Policy Charge	0	0	0	0	0	2	3
Medicare Supplemental	0	0	0	0	0	0	4
Services Not Covered	0	0	0	0	0	2	0
Not a Billable Policy	0	0	0	0	0	0	2

Table 3 (continued)

Reasons Reported by Third Party Payer for Nonpayment in Full

(N=150)

Combination Reasons	Carrier APWU	BC FEP	BS PERS CARE	CIGNA 1620	GEHA	MAIL	ALL OTHERS
Deductible/ Excess Charge	1	0	0	0	0	2	1
Copayment Req/ Excess Charge	1	0	0	0	1	5	3
Copayment Req/ Deductible	0	2	0	0	2	2	2

LIST OF FIGURES

Figure 1

Sample Superbill

NAVAL MEDICAL CENTER, SAN DIEGO
DEPARTMENT OF CARDIO-THORACIC SURGERY

JON: 5DCMA

SUPERBILL

*	DESCRIPTION	CPT
	1. OFFICE VISIT	
	N-O S-H-O-W	
	C-A-N-C-E-L-L-A-T-I-O-N	
	Established, Moderate to High	99215
	Moderate 99214 ☐ Low to Moderate	99213
	Minor 99212 ☐ Minimal	99211
	New Patient, High Complexity	99205
	Mod to High 99204 ☐ Low	99202
	Moderate 99203 ☐ Minimal	99201
	Post Operative Visit	99024
	2. CONSULTATIONS, OUTPATIENT	
	New/Est Patient, Brief	99241
	Expanded 99242 ☐ Mod Complexity	99244
	Detailed 99243 ☐ High Complexity	99245
	3. EMERGENCY DEPARTMENT SERVICES	
	New/Est Pt, Life Threatening	99285
	High Severity	99284
	Moderate Severity	99283
	Low to Moderate Severity	99282
	Minor	99281

*	DESCRIPTION	CPT
	4. INPATIENT CONSULTATIONS	
	INITIAL New/Est Pt, Minor	99251
	Expanded 99252 ☐ Mod Complexity	99254
	Detailed 99253 ☐ High Complexity	99255
	FOLLOW-UP, Low Complexity	99261
	Moderate 99262 ☐ High	99263
	5. CONFIRMATORY CONSULTATIONS	
	New/Est Pt, Minor	99271
	Expanded 99272 ☐ Detailed	99273
	Mod Comp 99274 ☐ High Complexity	99275
	6. CRITICAL CARE	
	First Hour	99291
	Each Additional 30 Minutes	99292
	7. CASE MANAGEMENT SERVICES	
	Interdisciplinary Team Conference, 30 min	99361
	Approximately 60 Minutes	99362
	Telephone Calls, Simple or Brief	99371
	Intermediate	99372
	Complex or Lengthy	99373

*	DESCRIPTION	CPT
	8. ENDOSCOPY	
	Bronchoscopy; Diagnostic, (Flexible or Rigid), w or w/o Cell Washing or Brushing	31622
	with Biopsy	31625
	Esophagus with Biopsy	43202
	Esophagus, Diagnostic	43200
	Thoracoscopy	32700
	Thoracoscopy with Biopsy	32705
	9. OTHER PROCEDURES	
	Debridement; Skin; Partial Thickness	11040
	Incision & Drainage-Hematoma	10140
	Incision & Drainage-Hematoma Complete	10141
	Incision & Drainage (Complex)	10180
	Post Op Wound Infection, Incision & Drainage	10180
	Skin, Full Thickness; Debridement	11041
	Skin & Subcutaneous Tissue	11042
	Thoracentesis, for Aspiration, Initial/Subsequent	32000
	Tube Thoracostomy w/ w/o Water Seal	32020
	Other/Specify:	

DIAGNOSIS	ICD-9
Abscess of Lung	513.0
Abscess of Mediastinum	513.1
Abdominal Aortic Aneurysm, Not Ruptured	441.9
Abdominal Aortic Aneurysm, Ruptured	441.5
Achalasia and Cardiospasm	530.0
Coronary Occlusion w/o Myocardial Infarction	411.81
Acute Myocardial Infarction, UNSP	410.90
Acute Pericarditis, Other	420.99
Acute/Subacute Bacterial Endocarditis	421.0
Acute/Subacute Endocarditis, UNSP	421.9
Aneurysm of Heart	414.1
Aneurysm of Pulmonary Artery	417.1
Anomalies of Great Veins	747.4
Arterial Embolism/Thrombosis	444
Arteriovenous Fistula / Pulmonary Vessels	417.0
Atherosclerosis of Aorta	440.0
Aorta, Dissecting Aneurysm	441.0
Thoracic Aneurysm Ruptured	441.1
Thoracic Aneurysm w/o Rupture	441.2
Aortic Valve Disorders	424.1
Aortic/Mitral Valves Multiple Involvement	396.8
Aortic/Mitral Valve Disease, UNSP	396.9
Aortic/Mitral Valve Stenosis	396.0
Aortic Valve Disease, Other/UNSP	395.9
Asbestosis	501
Atresia & Stenosis of Aorta	747.22

DIAGNOSIS	ICD-9
Benign Neoplasm, Trachea	212.2
Benign Neoplasm, Bronchus and Lung	212.3
Pleura	212.4
Mediastinum	212.5
Thymus	212.6
Heart	212.7
Bronchiectasis	494
Carcinoma in Situ, Trachea	231.1
Bronchus and Lung	231.2
Cardiovascular Disease, UNSP	429.2
Chest Wall Mass	786.6
Chronic Airway Obstruction, NEC	496
Patent Ductus Arteriosus	747.0
Coarctation of Aorta (Preductal/Postductal)	747.10
Coronary Atherosclerosis	414.0
Deep Vein Thrombosis	451.11
Diaphragm Disorders	519.4
Emphysema, Interstitial	518.1
Emphysematous Bleb	492.0
Empyema, w/ Fistula	510.0
w/o Fistula	510.9
Endocardial Cushion Defects UNSP Type	745.60
Ostium Primum Defect	745.61
UNSP Defect of Septal Closure	745.9
Endocarditis in Diseases Classified Elsewhere (Code 1st Underlying Disease) Specify:	424.91

DIAGNOSIS	ICD-9
Esophagitis (GER)	530.1
Esophagus, Carcinoma in Situ	230.1
Esophagus, UNSP Disorders	530.9
Esophagus, Other Specified Disorders	530.8
Esophagus, Dyskinesia	530.5
Esophagus, Diverticulum, Acquired	530.6
Esophagus, Cervical, Malignant Neoplasm	150.0
Thoracic Esophagus	150.1
Abdominal Esophagus	150.2
Upper Third	150.3
Middle Third	150.4
Lower Third	150.5
UNSP	150.9
Esophagus Perforation	530.4
Esophagus Ulcer	530.2
Excessive/Abnormal Scarring	709.2
Mallory-Weiss Syndrome	530.7
Hemopericardium	423.0
Kaposi's Sarcoma, Lung	176.4
Keloid Scar	701.4
Lung Involvement in Other Diseases Classified Elsewhere Code 1st Underlying Disease Specify:	517.8
Lymph Node Mass (Benign)	238.8
Malignant Neoplasm Contralateral Bronchus, Thorax	171.4
Malignant Neoplasm Overlapping Sites, Thorax	195.1
Malignant Neoplasm, Trachea	162.0

ADDRESSOGRAPH

Completed Insurance Questionnaire ☐ Yes ☐ No

Insurance ☐ Yes ☐ No

Active Duty ☐ Yes ☐ No

DATE/TIME:

SIGNED: PHYSICIAN/PROVIDER

NMCSD 6010/142 (4-93)

REVISED (5-93)

APPENDIX - Definitions

Third Party Payers

ALL OTHERS - Includes any carrier not specifically named; the highest volume carriers were named individually and the others combined into a category.

APWU - American Postal Workers' Union

BC FEP - Blue Cross Federal Employee Program

BS PERS CARE - Blue Shield Pers Care

CIGNA 1620 - Cigna Health Care, "1620" is the designation the local collection office uses to differentiate to which address a particular Cigna claim is mailed

GEHA - Government Employees' Health Care Association

MAIL - Mail Handlers' Benefit Plan

Visit Type Codes

Case Management - current procedural terminology codes 99361, 99362, 99371, 99372, and 99373

Dept of Medicine - Any current procedural terminology code from 90701 to 99199 (exclusive of anesthesiology)

Emergency Dept Services - current procedural terminology codes from 99281 to 99285

Inpatient Consultation - current procedural terminology codes from 99251 to 99255 and 99261 to 99263

Office Visit for Established Patient - current procedural terminology codes from 99211 to 99215

Office Visit for New Patient - current procedural terminology codes from 99201 to 99205 and 99024

Outpatient Consultation - current procedural terminology codes from 99241 to 99245

Radiology Procedure - Any current procedural terminology code from 70010 to 79999.

Surgery Department - Any current procedural terminology code from 10040 to 69979