

# ONCOLOGY DRG WINNERS AND LOSERS: A SECOND LOOK

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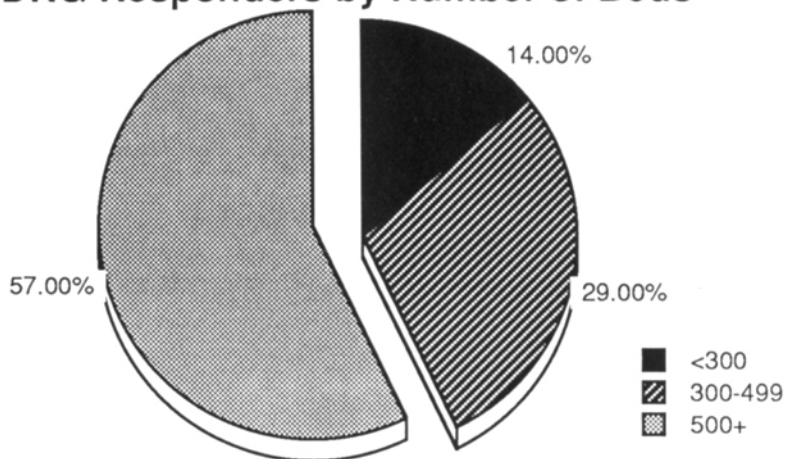
This is the second in a series of reports funded by the Association of Community Cancer Centers (ACCC) DRG Research Program. This report focuses on how hospitals are faring under prospective payment. Consistent with what was done in our first report, ACCC member institutions supplied information on 72 DRGs. These DRGs were selected as being either entirely cancer-related or partially cancer-related.

Five respondents were able to report their data, via computer, using the CHOP-DS tumor registry software package. These respondents reported on a much broader spectrum of diagnoses, including approximately 150 other DRGs. These additional DRGs represent discharges to cancer patients for cancer related treatment and include discharges, which are treatment related. Included within this broader group are complications such as pneumonia. In addition, data are presented on 40 purely cancer DRGs identified by Dr. Susan Horn and our own research team. Thus, we have information on 230 DRGs for which hospitals reported cancer patient discharges, 72 of which we identified in our earlier reports, and 40 of which are exclusively cancer diagnoses.

## 72 DRG Analysis

Twenty-one hospitals reported information on 13,700 discharges. Exhibit 1 shows the distribution of reporting institutions by bed size. This distribution roughly parallels the overall distribution of ACCC member institutions. The data on number of new cancer patients treated annually was quite interesting. One quarter of the respondents on this item fell into each of these categories: under 500 patients, 500 to 899 patients, 900 to

**EXHIBIT 1**  
**DRG Responders by Number of Beds**



1199 patients, over 1200 patients.

Three institutions did not indicate the reporting period for the data, but this does not affect the comparisons since they are based on ratios. However, it does affect the absolute numbers in that they are unadjusted for time. The earliest data included comes from October 1983, and the most recent is for May 1986. Two-thirds of the respondents used either the 1985 calendar or 1985 fiscal year as the reporting period. If cost data were not provided, cost was computed using 80% of charges as an approximation. Less than 10% of the respondents failed to provide

actual cost data. Of those rating the quality of their data, 70% stated it was reasonably or highly accurate.

## The Major Cancer DRGs

Ten of the DRGs accounted for over half of the admissions. These are presented in Exhibit 2. DRG 410, Chemotherapy, and DRG 82, Respiratory Neoplasms, account for one out of every four cancer discharges. The list shown here differs slightly from that published in our first monograph. In the previous list, DRG 82 was the most frequently

cited DRG with DRG 410 second. In this edition, the order is reversed and DRG 410 shows a much larger percentage than previously (11.8% versus 15.7%). Eight of the top ten DRGs are the same in the current list as in the previous version. DRGs 261 and 10 moved down marginally in the number of discharges reported, while discharges to DRGs 188 and 413 increased sufficiently to replace them on the "top ten list." While some of these shifts may be accounted for in DRG differences in reporting institutions, we believe the major shift of 410 and 82 reflects PRO policies on admission and categorization. The "top ten" DRGs account for 58.5% of all cancer discharges in our first report and 56.2% in this report.

**The Major DRGs for Total Reimbursement, Charges, and Cost**

The next series of Exhibits (Exhibits 3-5) illustrate total reimbursement, total charges, and differences of reimbursement and cost by DRG for the @70 DRG group. Each list is ordered so that the largest values are first. These DRGs account for over \$60 million in charges and nearly \$50 million in reimbursement. When actual costs were unavailable, an estimate was generated using 80% of charges as an approximation. With this data, it was possible to estimate the net income to the hospitals (the difference between reimbursement and cost). This difference was \$1.4 million. If this is accurate, then the profit margin (charges/net) for the cancer program was 2.3%, certainly a low "rate of return" in our increasingly financially-oriented industry.

In terms of total charges, the top ten DRGs account for over \$38 million in charges or 63% of the total. These DRGs and their amounts are shown in Exhibit 6. Other than the order, the top five DRGs for charges is the same in the current list as in the previous one. In the six to ten range, however, two new entrants are present: DRGs 400 and 404.

As might be expected, the top DRGs for reimbursement were the same as those for charges. These 10 DRGs account for \$29 million in reimbursement, which corresponds to 58% of the

**EXHIBIT 2  
THE 10 MAJOR CANCER DRGs**

DRG 410	Chemotherapy (16.8 percent of all cancer related discharges)
DRG 82	Respiratory Neoplasms (11.1 percent of all cancer related discharges)
DRG 403	Lymphoma or Leukemia Age >69 &/or CC (6.6 percent of all cancer related discharges)
DRG 239	Path Fractures & Conn Tissue Malig (5.8 percent of all cancer related discharges)
DRG 395	Red Blood Cell Disorders Age >17 (3.8 percent of all cancer related discharges)
DRG 257	Total Mastectomy for malig Age >69 (3.6 percent of all cancer related discharges)
DRG 203	Malig Hepatobiliary System or Pancreas (3.3 percent of all cancer related discharges)
DRG 172	Digestive malig Age >69 (3.0 percent of all cancer related discharges)
DRG 261	Breast Proc for Non-Malig Except Biopsy and Loc Exc (2.3 percent of all cancer related discharges)
DRG 10	Nervous System Neoplasms Age >69 &/or CC (2.2 percent of all cancer related discharges)

total reimbursement. These DRGs and the total reimbursement are shown in Exhibit 7.

The average reimbursement to charge ratio for all the cancer DRGs was 0.82. This means that the hospital received in payments, on average, 80 percent of what the hospital billed its patients. There was tremendous variation in this ratio by individual DRGs. The top five ratios and their respective DRGs are shown in Exhibit 8, and the lowest five ratios and their respective DRGs are shown in Exhibit 9.

**40 "Pure" Cancer DRGs**

Until now, we have presented data on a mixed group of DRGs. In an article for *The Journal of Cancer Program Management*, Dr. Susan Horn, of the Johns Hopkins School of Public Health, utilizes 40 "pure" cancer DRGs. These were jointly identified with our research team on the basis of information from multiple hospital programs and from our cancer data system. These 40 DRGs account for 79% of all the cancer discharges reported by the 21 hospitals, and @86% of the total reimbursement, charges and costs. Detailed information on these DRGs are presented in Exhibit 10.

These 40 pure cancer DRGs are the focus for the next analysis, which presents data on cancer winners and losers.

**The Major Cancer DRG "Winners" and "Losers"**

Reimbursement to cost ratios are one measure of DRG profitability. The ratio of reimbursement cost for the 40 pure cancer DRGs was computed as 1.00. In other words, reimbursement and costs for all discharges from all sources were summed. Then, total reimbursement was divided by total cost. The overall ratio projects a breakeven situation, i.e., no profit or loss. The five highest ratios and their DRGs are shown in Exhibit 11, and the ten lowest are shown in Exhibit 12.

As seen in Exhibit 11, none of the cancer DRGs have very high reimbursement to cost ratios. The highest ratio, that for DRG 347 - Malignancy of Male Reproductive System, Age > 69 and/or Comorbidity or Complications - was only 1.89. In the non-cancer DRGs reported on by these hospitals, the highest ratio was 6.01. The worst ratio was for DRG 412 - Malignancy with Endoscopy - which was 0.73. Of the 40 cancer DRGs, over one quarter had ratios of less than one. By definition, these ratios are a relative measure, and do not provide administrators with any estimates on the actual level of the profit/loss. This is provided by the average profit/loss per DRG and the total profit/loss per DRG.

**EXHIBIT 3  
TOTAL GROSS REIMBURSEMENT BY DRG**

DRG	TITLE	TOTAL REIMBURSEMENT
82	Respiratory Neoplasms	\$ 6,153,748.00
403	Lymphoma or Leukemia Age >=70 &/or CC	5,971,182.00
239	Pathological Fractures & Musculoskeletal & Conn Tiss Malig	2,933,747.00
410	Chemotherapy	2,727,898.00
400	Lymphoma or Leukemia with Major O.R. Procedure	2,574,681.00
303	Kidney, Ureter & Major Bladder Procedure for Neoplasm	2,222,017.00
257	Total Mastectomy for Malignancy Age >=70 &/or CC	1,814,332.00
172	Digestive Malignancy Age >=70 &/or CC	1,676,588.00
404	Lymphoma or Leukemia Age 18-69 w/o CC	1,607,448.00
203	Malignancy of Hepatobiliary System or Pancreas	1,569,093.00
395	Red Blood Cell Disorders Age >=18	1,300,546.00
10	Nervous System Neoplasms Age >=70 &/or CC	1,271,773.00
413	Oth Myeloprolif Disord or Poorly Diff Neopl Dx Age >=70 &/or CC	1,154,614.00
406	Myeloprolif Disord or Poorly Diff Neopl w/Maj O.R. Proc & CC	1,039,127.00
408	Myeloprolif Disord or Poorly Diff Neopl w/Minor O.R. Proc	863,241.00
199	Hepatobiliary Diagnostic Procedure for Malignancy	770,947.00
258	Total Mastectomy for Malignancy Age <70 w/o CC	743,741.00
188	Other Digestive System Diagnoses Age >=70 &/or CC	716,079.00
261	Breast Proc for Non-Malig Except Biopsy & Loc Exc	682,858.00
409	Radiotherapy	642,877.00
64	Ear, Nose & Throat Malignancy	597,216.00
401	Lymphoma or Leukemia w/Minor O.R. Proc Age >=70 &/or CC	543,304.00
318	Kidney & Urinary Tract Neoplasms Age >=70 &/or CC	499,296.00
363	D & C, Conization & Radio-Implant for Malignancy	448,958.00
346	Malignancy, Male Reproductive System, Age >=70 &/or CC	434,111.00
407	Myeloprolif Disord or Poorly Diff Neopl w/Maj O.R. Proc w/o CC	397,128.00
274	Malignant Breast Disorders Age >=70 &/or CC	391,034.00
164	Appendectomy w/Complicated Princ Diag Age >=70 &/or CC	389,013.00
398	Reticuloendothelial & Immunity Disorders Age >=70 &/or CC	384,154.00
165	Appendectomy w/Complicated Princ Diag Age <70 w/o CC	371,289.00
414	Oth Myeloprolif Disord or Poorly Diff Neopl Dx Age <70 w/o CC	366,168.00
366	Malignancy, Female Reproductive System Age >=70 &/or CC	345,538.00
357	Uterus & Adenexa Procedures, for Malignancy	344,583.00
300	Endocrine Disorders Age >=70 &/or CC	335,450.00
145	Other Circulatory Diagnoses w/o CC	319,775.00
262	Breast Biopsy & Local Excision for Non-Malignancy	314,942.00
338	Testes Procedures, for Malignancy	312,842.00
259	Subtotal Mastectomy for Malignancy Age >=70 &/or CC	300,147.00
411	History of Malignancy w/o Endoscopy	296,122.00
256	Oth Diagnoses of Musculoskeletal System & Conn Tiss	289,799.00
405	Lymphoma or Leukemia Age 0-17	254,280.00
369	Menstrual & Oth Female Reproductive System Disorders	248,681.00
344	Oth Male Reproductive System O.R. Proc for Malig	247,136.00
272	Major Skin Disorders Age >=70 &/or CC	217,606.00
11	Nervous System Neoplasms Age <70 w/o CC	217,114.00
173	Digestive Malignancy Age <70 w/o CC	210,437.00
402	Lymphoma or Leukemia w/Minor O.R. Proc Age <70 w/o CC	200,025.00
260	Subtotal Mastectomy for Malignancy Age <70	193,129.00
73	Other Ear, Nose & Throat Diagnoses Age >=18	170,622.00
467	Other Factors Influencing Health Status	169,192.00
189	Other Digestive System Diagnoses Age 18-69 w/o CC	157,093.00

**EXHIBIT 3 Continued  
TOTAL GROSS REIMBURSEMENT BY DRG**

DRG	TITLE	TOTAL REIMBURSEMENT
301	Endocrine Disorders Age <70 w/o CC	149,693.00
185	Dental & Oral Dis Exc Extraction & Restoration, Age >=18	122,033.00
347	Malignancy, Male Reproductive System, Age <70 w/o CC	113,726.00
399	Reticuloendothelial & Immunity Disorders Age <70 w/o CC	93,182.00
47	Other Disorders of the Eye Age >=18 with CC	88,412.00
187	Dental Extractions & Restorations	78,643.00
367	Malignancy, Female Reproductive System Age <70 w/o CC	73,117.00
284	Minor Skin Disorders Age <70 w/o CC	70,192.00
319	Kidney & Urinary Tract Neoplasms Age <70 w/o CC	44,087.00
276	Non-Malignant Breast Disorders	42,506.00
46	Other Disorders of the Eye Age >=18 with CC	41,851.00
275	Malignant Breast Disorders Age <70 w/o CC	39,535.00
190	Other Digestive System Diagnoses Age 0-17	34,928.00
345	Oth Male Reproductive Sys O.R. Proc Exc for Malig	31,699.00
273	Major Skin Disorders Age <70 w/o CC	31,337.00
465	Aftercare with History of Malignancy as Secondary Dx	24,848.00
352	Other Male Reproductive System Diagnoses	23,446.00
412	History of Malignancy with Endoscopy	20,163.00
396	Red Blood Cell Disorders Age 0-17	16,309.00
48	Other Disorders of the Eye Age 0-1	77,778.00

The average difference between reimbursement and charges is one way to describe the profit/loss per DRG. The five best and worst differences are shown in Exhibits 13 and 14. The average difference does not take volume into account.

A DRG, which may be a modest loser on a per discharge basis, will have little financial impact on the hospital if the DRG accounts for only a few discharges. Conversely, a DRG with a small profit per unit may contribute heavily to the profitability of the cancer program because of the large volume of discharges. Exhibit 5 shows data on the difference between total reimbursement and costs by DRG for all the reported DRGs.

Data on the five "best" and "worst" cancer DRGs are presented in Exhibits 15 and 16. The list of the five DRGs, which are "winners" (in terms of total difference), is entirely different from the list of the top five DRGs in terms of average difference. This is not true for the list of losers. This means that the DRGs with the highest average lost per

discharge were, for the most part, also high volume DRGs. This is a catastrophic combination for a cancer program. The single largest loser was DRG 403 with \$1.4 million in losses. This was twice the loss (\$1.4 million versus \$0.75 million) experienced by the next largest loser, DRG 410. In comparison to these two giants, the other DRG losers lost only modest amounts.

**The Non-Cancer DRGs**

Five of the reporting institutions relied upon a computerized cancer data system, CHOP-DS, for reporting their DRG data. As a consequence, they reported upon a broader group of DRGs. They included, in their reports, any discharge for a cancer patient, which was related to the disease. When compared to the original ACCC list, this group reported on 466 additional discharges.

The largest "winner" in this group was DRG 75 - Major Chest Procedures. There were 50 discharges in this DRG and the difference between reimbursement and charges was \$254,216. The largest "loser"

was DRG 110 - Major Reconstructive Vascular Procedure Age < 70 without Comorbidity or Complications - which accounted for nearly a \$775,009 loss over 17 discharges.

Clearly, these peripheral DRGs can impact on the financial health of the cancer program and should be examined in any detailed analysis of the program. As more programs opt for computerized reporting, we will be able to present more detailed analyses of these data as well as longitudinal data by site of disease.

**DRG 410**

DRG 410, because of its importance to community cancer centers, and because it is the lowest weighted DRG, has been of particular interest to ACCC. Clearly, more members have reported inequities with this DRG than any other. Essentially, PROs have kept many cancer chemotherapy patients previously admitted from entering the hospital. Thus, those cases now in the hospital tend to be complicated cases, for example, continuous

**EXHIBIT 4  
TOTAL DRG CHARGES FOR 72 DRGS**

DRG	TITLE	TOTAL CHARGES
82	Respiratory Neoplasms	\$ 7,485,733.00
239	Pathological Fractures & Musculoskeletal & Conn Tiss Malig	3,389,341.00
303	Kidney, Ureter & Major Bladder Procedure for Neoplasm	3,152,248.00
400	Lymphoma or Leukemia with Major O.R. Procedure	2,850,135.00
172	Digestive Malignancy Age >=70 &/or CC	2,353,534.00
257	Total Mastectomy for Malignancy Age >=70 &/or CC	2,005,019.00
404	Lymphoma or Leukemia Age 18-69 w/o CC	1,844,659.00
203	Malignancy of Hepatobiliary System or Pancreas	1,591,041.00
10	Nervous System Neoplasms Age >=70 &/or CC	1,414,816.00
413	Oth Myeloprolif Disord or Poorly Diff Neopl Dx Age >=70 &/or CC	1,414,000.00
395	Red Blood Cell Disorders Age >=18	1,319,613.00
406	Myeloprolif Disord or Poorly Diff Neopl w/Maj O.R. Proc & CC	1,311,904.00
188	Other Digestive System Diagnoses Age >=70 &/or CC	997,914.00
199	Hepatobiliary Diagnostic Procedure for Malignancy	947,457.00
403	Lymphoma or Leukemia Age >=70 &/or CC	890,469.00
408	Myeloprolif Disord or Poorly Diff Neopl w/Minor O.R. Proc	836,374.00
409	Radiotherapy	800,461.00
261	Breast Proc for Non-Malig Except Biopsy & Loc Exc	767,150.00
401	Lymphoma or Leukemia w/Minor O.R. Proc Age >=70 &/or CC	766,919.00
258	Total Mastectomy for Malignancy Age <70 w/o CC	738,384.00
318	Kidney & Urinary Tract Neoplasms Age >=70 &/or CC	693,862.00
64	Ear, Nose & Throat Malignancy	640,740.00
363	Conization & Radio-Implant for Malignancy	572,558.00
398	Reticuloendothelial & Immunity Disorders Age >=70 &/or CC	551,437.00
164	Appendectomy w/Complicated Princ Diag Age >=70 &/or CC	491,993.00
346	Malignancy, Male Reproductive System, Age >=70 &/or CC	479,642.00
357	Uterus & Adenexa Procedures, for Malignancy	456,248.00
300	Endocrine Disorders Age >=70 &/or CC	448,615.00
410	Chemotherapy	444,159.00
274	Malignant Breast Disorders Age >=70 &/or CC	391,066.00
366	Malignancy, Female Reproductive System Age >=70 &/or CC	388,767.00
344	Oth Male Reproductive System O.R. Proc for Malig	347,373.00
259	Subtotal Mastectomy for Malignancy Age >=70 &/or CC	332,687.00
338	Testes Procedures, for Malignancy	328,249.00
414	Oth Myeloprolif Disord or Poorly Diff Neopl Dx Age <70 w/o CC	311,489.00
407	Myeloprolif Disord or Poorly Diff Neopl w/Maj O.R. Proc w/o CC	307,116.00
262	Breast Biopsy & Local Excision for Non-Malignancy	299,479.00
165	Appendectomy w/Complicated Princ Diag Age <70 w/o CC	292,973.00
272	Major Skin Disorders Age >=70 &/or CC	288,725.00
411	History of Malignancy w/o Endoscopy	276,709.00
405	Lymphoma or Leukemia Age 0-17	271,030.00
256	Oth Diagnoses of Musculoskeletal System & Conn Tiss	270,479.00
145	Other Circulatory Diagnoses w/o CC	242,795.00
73	Other Ear, Nose & Throat Diagnoses Age >=18	213,298.00
173	Digestive Malignancy Age <70 w/o CC	197,221.00
11	Nervous System Neoplasms Age <70 w/o CC	170,401.00
402	Lymphoma or Leukemia w/Minor O.R. Proc Age <70 w/o CC	169,008.00
260	Subtotal Mastectomy for Malignancy Age <70	164,719.00
185	Dental & Oral Dis Exc Extraction & Restoration, Age >=18	161,693.00

**EXHIBIT 4 Continued  
TOTAL DRG CHARGES FOR 72 DRGS**

DRG	TITLE	TOTAL CHARGES
369	Menstrual & Oth Female Reproductive System Disorders	132,811.00
189	Other Digestive System Diagnoses Age 18-69 w/o CC	130,114.06
187	Dental Extractions & Restorations	96,088.00
367	Malignancy, Female Reproductive System Age <70 w/o CC	83,546.00
399	Reticuloendothelial & Immunity Disorders Age <70 w/o CC	79,404.00
467	Other Factors Influencing Health Status	78,546.00
47	Other Disorders of the Eye Age >=18 with CC	75,321.00
347	Malignancy, Male Reproductive System, Age <70 w/o CC	75,028.00
301	Endocrine Disorders Age <70 w/o CC	66,299.00
345	Oth Male Reproductive Sys O.R. Proc Exc for Malig	66,171.00
284	Minor Skin Disorders Age <70 w/o CC	57,346.00
190	Other Digestive System Diagnoses Age 0-17	54,088.00
46	Other Disorders of the Eye Age >=18 with CC	51,485.00
465	Aftercare with History of Malignancy as Secondary Dx	38,896.00
319	Kidney & Urinary Tract Neoplasms Age <70 w/o CC	36,044.00
412	History of Malignancy with Endoscopy	35,141.00
273	Major Skin Disorders Age <70 w/o CC	34,246.00
275	Malignant Breast Disorders Age <70 w/o CC	32,933.00
276	Non-Malignant Breast Disorders	21,947.00
352	Other Male Reproductive System Diagnoses	14,283.00
396	Red Blood Cell Disorders Age 0-1	77,844.00
48	Other Disorders of the Eye Age 0-1	75,462.00

infusion therapy cases. Given new technology and more severely ill patients, this DRG is very likely to be incorrect. Four institutions contributed data only for DRG 410, and were not included in the general analysis. In this section, data are presented which includes these hospitals.

The data for this DRG was examined by bed size of the reporting institution. Six percent of the discharges were in hospitals of under 300 beds, 55.7% in hospitals of 300-499 beds, and 38.2% in hospitals of 500 or more beds. As Exhibit 17 indicates, the larger hospitals have a disproportionately larger share of the reimbursement, charges, and costs for this DRG. As a result, they have a disproportionately lower percentage of the absolute loss (Exhibit 18) but a higher total loss because of the volume.

The original 21 hospitals reported on 2,309 discharges for DRG 410. With the data from these five hospitals, the total rises to 3,633. The reimbursement

to charge ratio was 0.70, and the reimbursement to cost ratio was 0.92. There was an average loss of \$125 per case.

The trend is to hospitalize only the most severely ill patients; however, patients who might have been previously classified under a DRG with greater reimbursement weight are now likely to be classified under DRG 410 (which has the lowest of all possible reimbursement weights). Thus, we can expect that chemotherapy will continue to be a major loser for community cancer programs, because it is no longer accurately weighted.

**SUMMARY**

This second year of DRG research analysis illustrates the potential of reimbursement to impact quality of care. All of the research studies that we have reviewed, in addition to our own data, demonstrate significant disincentives to develop and maintain extensive resources to manage more complicated cases of

cancer. Cases are being shifted from higher weighted DRGs to lower weighted DRGs as definitions change. PROs are now excluding cases that formerly made the average chemotherapy admission more likely to be a breakeven proposition.

There is little doubt that DRGs will continue to be the prevalent form of reimbursement, until it is replaced by capitation. For the most part the program continues to function within acceptable limits. Yet, new technology and changing patterns of care are going to require significant attention. Capitation, of course, offers more flexibility for providers and less responsibility for the Federal government in the management of care. Yet, competitive health care plans are going to have difficulty when faced with restrictive funding and severely ill cancer patients. DRGs are teaching us important lessons about these potential pitfalls of reimbursement and competition, as well as their benefits. ■

**EXHIBIT 5  
TOTAL GROSS DIFFERENCES BY DRG**

DRG	TITLE	TOTAL DIFFERENCES
203	Malignancy of Hepatobiliary System or Pancreas	\$ 364,762.20
82	Respiratory Neoplasms	309,965.80
395	Red Blood Cell Disorders Age >=18	285,853.80
239	Pathological Fractures & Musculoskeletal & Conn Tiss Malig	241,512.20
400	Lymphoma or Leukemia with Major O.R. Procedure	225,428.00
408	Myeloprolif Disord or Poorly Diff Neopl w/Minor O.R. Proc	197,965.40
257	Total Mastectomy for Malignancy Age >=70 &/or CC	196,668.80
10	Nervous System Neoplasms Age >=70 &/or CC	175,066.20
369	Menstrual & Oth Female Reproductive System Disorders	145,074.60
165	Appendectomy w/Complicated Princ Diag Age <70 w/o CC	141,073.20
407	Myeloprolif Disord or Poorly Diff Neopl w/Maj O.R. Proc w/o CC	139,013.20
145	Other Circulatory Diagnoses w/o CC	130,348.00
258	Total Mastectomy for Malignancy Age <70 w/o CC	106,799.20
414	Oth Myeloprolif Disord or Poorly Diff Neopl Dx Age <70 w/o CC	106,587.00
467	Other Factors Influencing Health Status	102,579.60
301	Endocrine Disorders Age <70 w/o CC	98,257.80
64	Ear, Nose & Throat Malignancy	97,519.00
11	Nervous System Neoplasms Age <70 w/o CC	87,973.00
262	Breast Biopsy & Local Excision for Non-Malignancy	84,748.80
261	Breast Proc for Non-Malig Except Biopsy & Loc Exc	82,084.80
274	Malignant Breast Disorders Age >=70 &/or CC	73,457.00
411	History of Malignancy w/o Endoscopy	72,408.40
256	Oth Diagnoses of Musculoskeletal System & Conn Tiss	70,495.40
346	Malignancy, Male Reproductive System, Age >=70 &/or CC	66,985.80
409	Radiotherapy	63,342.60
338	Testes Procedures, for Malignancy	62,931.60
402	Lymphoma or Leukemia w/Minor O.R. Proc Age <70 w/o CC	61,948.80
260	Subtotal Mastectomy for Malignancy Age <70	55,126.00
189	Other Digestive System Diagnoses Age 18-69 w/o CC	53,782.40
347	Malignancy, Male Reproductive System, Age <70 w/o CC	53,626.20
413	Oth Myeloprolif Disord or Poorly Diff Neopl Dx Age >=70 &/or CC	46,018.40
173	Digestive Malignancy Age <70 w/o CC	43,802.20
259	Subtotal Mastectomy for Malignancy Age >=70 &/or CC	40,210.80
404	Lymphoma or Leukemia Age 18-69 w/o CC	37,679.20
366	Malignancy, Female Reproductive System Age >=70 &/or CC	33,696.00
399	Reticuloendothelial & Immunity Disorders Age <70 w/o CC	29,807.60
47	Other Disorders of the Eye Age >=18 with CC	29,287.60
284	Minor Skin Disorders Age <70 w/o CC	25,054.00
276	Non-Malignant Breast Disorders	24,970.40
164	Appendectomy w/Complicated Princ Diag Age >=70 &/or CC	20,400.00
319	Kidney and Urnary Tract Neoplasms Age <70 w/o CC	15,005.40
352	Other Male Reproductive System Diagnoses	12,194.00
275	Malignant Breast Disorders Age <70 w/o CC	11,761.80
396	Red Blood Cell Disorders Age 0-17	10,143.20
405	Lymphoma or Leukemia Age 0-17	9,383.00
73	Other Ear, Nose & Throat Diagnoses Age >=18	9,090.40
187	Dental Extractions & Restorations	4,497.40
273	Major Skin Disorders Age <70 w/o CC	4,349.20
48	Other Disorders of the Eye Age 0-17	3,408.40

**EXHIBIT 5  
TOTAL GROSS DIFFERENCES BY DRG**

DRG	TITLE	TOTAL DIFFERENCES
46	Other Disorders of the Eye Age >=18 with CC	2,148.20
367	Malignancy, Female Reproductive System Age <70 w/o CC	1,476.60
199	Hepatobiliary Diagnostic Procedure for Malignancy	-3,489.60
465	Aftercare with History of Malignancy as Secondary Dx	-4,457.20
185	Dental & Oral Dis Exc Extraction & Restoration, Age >=18	-6,746.20
300	Endocrine Disorders Age >=70 &/or CC	-7,263.80
412	History of Malignancy with Endoscopy	-7,640.00
190	Other Digestive System Diagnoses Age 0-17	-8,342.40
272	Major Skin Disorders Age >=70 &/or CC	-9,513.20
345	Oth Male Reproductive Sys O.R. Proc Exc for Malig	-12,774.80
357	Uterus & Adenexa Procedures, for Malignancy	-22,344.60
344	Oth Male Reproductive System O.R. Proc for Malig	-22,751.20
398	Reticuloendothelial & Immunity Disorders Age >=70 &/or CC	-40,423.00
318	Kidney & Urinary Tract Neoplasms Age >=70 &/or CC	-45,914.20
188	Other Digestive System Diagnoses Age >=70 &/or CC	-50,441.20
363	Conization & Radio-Implant for Malignancy	-63,434.60
406	Myeloprolif Disord or Poorly Diff Neopl w/Maj O.R. Proc & CC	-65,797.40
401	Lymphoma or Leukemia w/Minor O.R. Proc Age >=70 &/or CC	-76,451.00
172	Digestive Malignancy Age >=70 &/or CC	-181,994.00
303	Kidney, Ureter & Major Bladder Procedure for Neoplasm	-189,696.00
410	Chemotherapy	-751,847.00
403	Lymphoma or Leukemia Age >=70 &/or CC	-1,402,765.00

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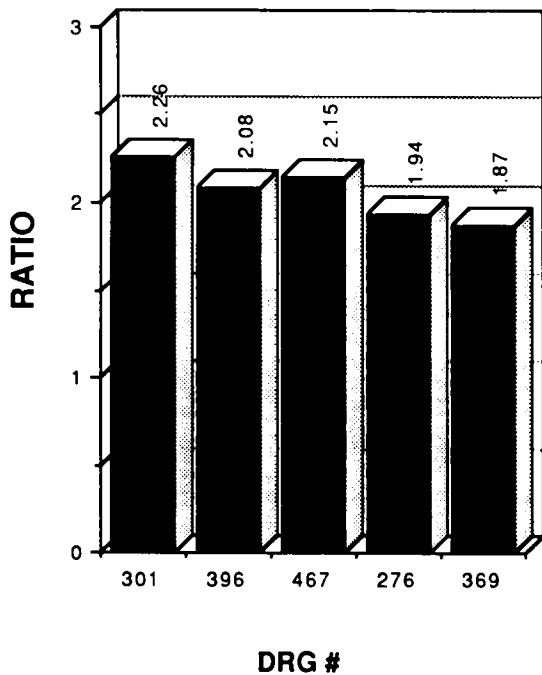
**EXHIBIT 6  
THE TOP 10 CANCER DRGs IN CHARGES**

- DRG 403 Lymphoma or Leukemia Age >69 &/or CC (\$8,904,693 on 901 discharges)
- DRG 82 Respiratory Neoplasms (\$7,485,733 on 1518 discharges)
- DRG 410 Chemotherapy (\$4,441,590 on 2309 discharges)
- DRG 239 Path Fractures & Musculoskeletal & Conn Tissue Malig (\$3,389,341 on 791 discharges)
- DRG 303 Kidney, Ureter & Major Bladder Proc for Neoplasm (\$3,152,248 on 237 discharges)
- DRG 400 Lymphoma or Leukemia with Major OR Proc (\$2,850,135 on 215 discharges)
- DRG 172 Digestive Malignancy Age >69 &/or CC (\$2,353,534 on 415 discharges)
- DRG 257 Total Mastectomy for Malignancy Age >69 (\$2,005,019 on 492 discharges)
- DRG 404 Lymphoma or Leukemia Age 18-69 w/o CC (\$1,844,659 on 108 discharges)
- DRG 203 Malignancy of Hepatobiliary System or Pancreas (\$1,591,041 on 456 discharges)

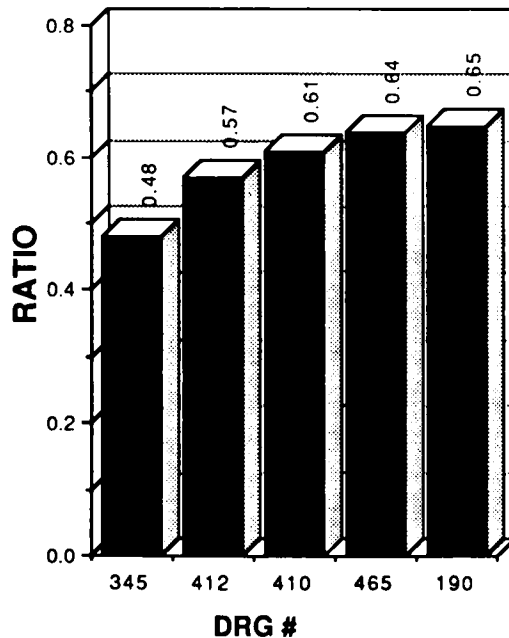
**EXHIBIT 7  
THE TOP 10 CANCER DRGs IN REIMBURSEMENTS**

- DRG 403 Lymphoma or Leukemia Age >69 &.or CC (\$5,971,182 on 901 discharges)
- DRG 82 Respiratory Neoplasms (\$6,153,748 on 1518 discharges)
- DRG 239 Path Fractures & Musculoskeletal & Conn Tissue Malig (\$2,933,747 on 791 discharges)
- DRG 410 Chemotherapy (\$2,727,898 on 2309 discharges)
- DRG 400 Lymphoma or Leukemia with Major OR Proc (\$2,574,631 on 215 discharges)
- DRG 303 Kidney, Ureter & Major Bladder Proc for Neoplasm (\$2,222,017 on 237 discharges)
- DRG 257 Total Mastectomy for Malignancy Age >69 (\$1,814,332 on 492 discharges)
- DRG 172 Digestive malignancy Age >69 &/or CC (\$1,676,588 on 415 discharges)
- DRG 404 Lymphoma or Leukemia Age 18-69 (\$1,607,448 on 108 discharges)
- DRG 203 Malignancy of Hepatobiliary System or Pancreas (\$1,569,093 on 456 discharges)

**EXHIBIT 8  
5 Best Reimbursement/Charge Ratios**



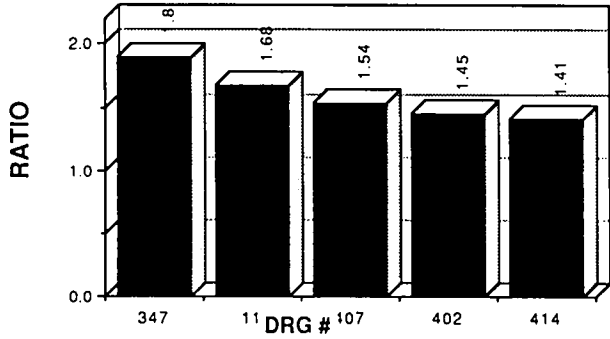
**EXHIBIT 9  
5 Worst Reimbursement/Charge Ratios**



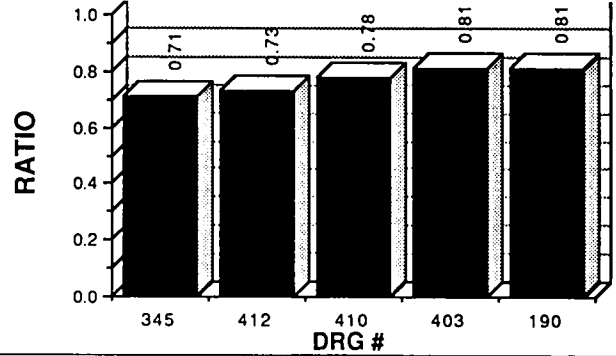
**EXHIBIT 10**  
**DATA ON THE 40 PURE CANCER DRGs**

DRG #	TOTAL DISCHARGES	TOTAL REIMBURSEMENT	TOTAL CHARGES	TOTAL COST
10	306	\$1,271,773	\$1,414,816	\$1,096,707
11	65	217,114	170,401	129,141
64	159	597,216	640,740	499,697
82	1518	6,13,748	7,485,733	5,843,782
172	415	1,676,588	2,353,534	1,858,582
173	70	210,437	197,221	166,635
199	83	770,947	947,457	774,437
203	456	1,569,093	1,591,041	1,204,331
239	791	2,933,747	3,389,341	2,692,235
257	492	1,814,332	2,005,019	1,617,663
258	221	743,741	738,384	636,942
259	94	300,147	332,687	259,936
260	62	193,129	164,719	138,003
274	93	391,034	391,066	317,577
275	14	39,535	32,933	27,773
303	237	2,222,017	3,152,248	2,411,713
344	62	247,136	347,373	269,887
346	132	434,111	479,642	367,125
347	40	113,726	75,028	60,100
353	2	14,418	14,288	11,874
357	55	344,583	456,248	366,928
363	210	448,958	572,558	512,393
366	113	345,538	388,767	311,842
367	39	731,117	83,546	71,640
400	215	2,574,681	2,850,135	2,349,253
401	108	543,304	766,919	619,755
402	56	200,025	169,008	138,076
403	901	5,971,182	8,904,693	7,373,947
404	302	1,607,448	1,844,659	1,569,769
405	6	254,280	271,030	244,897
406	95	1,039,127	1,311,904	1,104,924
407	61	397,128	307,116	258,115
408	223	863,241	836,374	665,276
409	217	642,877	800,461	579,534
410	2309	1,727,898	4,441,590	3,479,745
411	112	296,122	276,709	223,714
412	16	20,163	35,141	27,803
413	294	1,154,614	1,414,000	1,108,596
414	103	366,168	311,489	259,581
465	30	24,848	38,896	29,305
<b>Total</b>		<b>41,809,291</b>	<b>\$ 52,004,914</b>	<b>\$41,679,232</b>

**EXHIBIT 11**  
5 BEST REIMBURSEMENT/COST RATIOS



**EXHIBIT 12**  
5 WORST REIMBURSEMENT/COST RATIOS



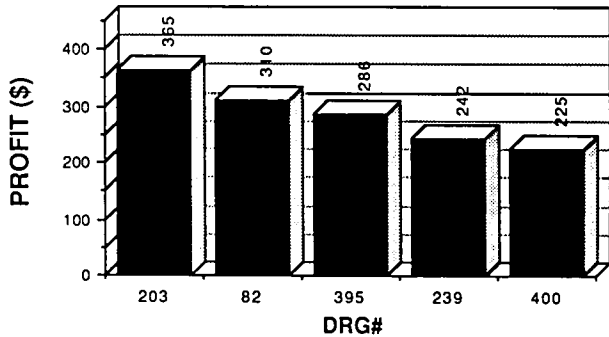
**EXHIBIT 13**  
THE BEST 5 CANCER DRGs FOR AVERAGE REIMBURSEMENT-COST DIFFERENCES

- DRG 301 Endocrine Disorders age <70 w/o CC (+\$3,639 on 27 discharges)
- DRG 407 Myeloproliferative Disorder or Poorly Differentiated Neoplasm with Major OR Procedure w/o CC (+\$2,279 on 61 discharges)
- DRG 467 Other Factors Influencing Health Status (+\$1,900 on 54 discharges)
- DRG 165 Appendectomy w/Complicated Princ Diag Age <70 w/o CC +\$1,786 on 79 discharges)
- DRG 405 Lymphoma or Leukemia Age 0-17 (+\$1,564 on 6 discharges)

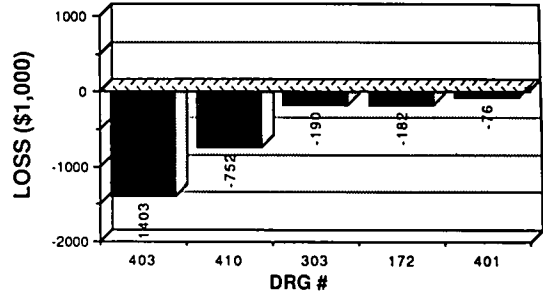
**EXHIBIT 14**  
THE WORST 5 CANCER DRGs FOR AVERAGE REIMBURSEMENT-COST DIFFERENCES

- DRG 345 Oth Male Reproductive Sys O.R. Proc Exc for Malig (-\$1,597 on 8 discharges)
- DRG 403 Lymphoma or Leukemia, Age >69 (-\$1,557 on 901 discharges)
- DRG 303 Kidney, Ureter, & Major Bladder Proc for Neoplasm (-\$800 on 237 discharges)
- DRG 401 Lymphoma or Leukemia with Minor OR Proc, Age <69(-\$708 on 108 discharges)
- DRG 406 Myeloproliferative Disorder or Poorly Differentiated (-\$693 on 95 discharges)

**EXHIBIT 15**  
5 BEST TOTAL \$ REIMBURSEMENT-COST DIFFERENCES



**EXHIBIT 16**  
WORST TOTAL \$ REIMBURSEMENT-COST DIFFERENCES



**EXHIBIT 17**  
Percentage Distribution of Discharges, Total Reimbursement, Total Charges, and Total Cost for DRG 410 by Hospital Bed Size

Bed Size	Discharges	Reimbursement	Charges	Costs
Under 300	6.0	7.5	6.1	7.2
300-499	55.7	48.3	51.7	50.9
500+	38.2	44.2	42.2	41.9

**EXHIBIT 18**  
Reimbursement Minus Cost Differences By Hospital Bed Size for DRG 410

Bed Size	Reimbursement - Cost	Percent
Under 300	-\$ 41,723.60	63
300-499	- 309,431.00	59.9
500+	- 224,652.20	38.8