

HOSPITAL REIMBURSEMENT, CHARGES, AND PROFIT AND LOSS FOR CANCER AND CANCER-RELATED DRGs

John L. Young, Jr., DrPH
Lee E. Mortenson, MS, MPA
Michael S. Ney, MPA

John L. Young, Jr., DrPH, is vice president, epidemiology and research, ELM Services, Inc., Lee E. Mortenson, MS, MPA, is executive director, ACCC; and Michael S. Ney, MPA, is vice president, office based systems, ELM Services, Inc.

Recently, 90 ACCC-affiliated institutions made available, for analysis, data for cancer patients by DRG reimbursement category. The data reported for 74 cancer or cancer-related DRGs included number of discharges reimbursed by DRG category, average total institutional charges by DRG category, and average institutional reimbursement by DRG category.

On the basis of these data, it was possible to construct total gross charges and reimbursement by DRG category for each of the 90 hospitals. However, not every hospital reported data for every cancer DRG; some DRGs were reported by only one or two hospitals. As a result, three DRG categories (334, 368, and 473) were excluded from this analysis, because data were reported by three or fewer hospitals.

In addition, 54 institutions reported actual average cost per discharge at their facilities for each of the cancer or cancer-related DRG categories. For these hospitals, it was possible to calculate an average profit/loss per discharge by DRG group. Once again, however, three DRGs were excluded from the profit/loss analysis (48, 396, and 403), because only two hospitals reported cost information for those categories.

Exhibit 1 on the next page shows the total gross reimbursement reported by the 90 hospitals for 71 DRG categories. The total dollar amounts are important only in

that they present the relative income for each cancer DRG. It is interesting to note, however, that while the 20 DRG categories reported as having the highest total gross reimbursement in 1986* remain the same, the order of their rank has changed. For instance, although DRG 82 (respiratory neoplasms) is once again reported as having the highest total gross reimbursement, DRG 410 (chemotherapy) has risen from fourth to second place, DRG 403 (lymphoma or leukemia, age ≥ 70 and/or complications) has dropped from second to fourth place, and DRG 395 (red blood cell disorders, ages ≥ 18) has risen from eleventh to fifth place.

The analysis also shows considerable variation from hospital to hospital within each DRG category. For example, the average (mean) reimbursement for DRG 82 (respiratory neoplasms) among the 90 institutions is \$4,234.05, but ranges from a low of \$2,731.59 to a high of \$13,666.18. For DRG 410, the average (mean) reimbursement across all reporting hospitals is \$1,535.70, ranging from \$924.00 to \$2,629.50. There was also considerable variation by region and bed size (see the article on page 16 for an indepth analysis of region and bed-size variations).

With respect to total gross charges (see Exhibit 2 on page 11), the same DRGs occur among the top 20 although the rank order differs slightly. Once again, the total dollar amounts are useful only as a

guide to the relative amount charged for each category. There was also considerable variation among the 90 hospitals within each region and by hospital size. An indepth analysis of these data is available for purchase (see "Cancer DRG Monography Now Available" on page 28).

Although the net difference between charge and reimbursement will indicate which DRGs are profitable and which are not, the true profit/loss margin must be based on actual costs to the hospital, not total reimbursement. As previously mentioned, 54 institutions provided cost, charge and reimbursement data. Exhibit 3 on page 12 shows the average net profit/loss by DRG category. It is both interesting and distressing to note that, in terms of gross reimbursement, the first six DRGs of the top 10 (82, 410, 239, 403, 395, and 303) resulted in a net loss for the reporting hospitals. Furthermore, not one of the 10 most profitable DRGs rank among the 10 DRGs with the highest total gross reimbursement, and only one category (DRG 406) ranks among the top 20. Conversely, four of the 10 most unprofitable DRGs (303, 398, 401, and 403) rank among the top 20 DRGs with the highest gross reimbursement.

Data by actual cancer diagnosis are not included in this analysis. However, the DRGs that relate to the three most frequently diagnosed cancers (lung, breast, and colon/rectum) generally show a profit. The major exception is DRG 82 (respiratory neoplasms).

Obviously, it is difficult to draw firm conclusions from a cursory analysis of the complicated issues of cost and reimbursement. Further study is needed to understand why there are such wide variations from hospital to hospital and from region to region. ■

*Cancer DRGs: A Comparative Report on Key Cancer DRGs. Edited by Lee E. Mortenson, MS, MPA. Association of Community Cancer Centers: 1986.