Studying the Effects of the DRG-Based Prospective Payment System on Quality of Care

Design, Sampling, and Fieldwork

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We have conducted a nationally representative before-after study of the effects of the diagnosis related groups–based prospective payment system (PPS) on quality of in-hospital care for aged Medicare patients. We used a pre-post design with multiple time points in both the pre-PPS (calendar years 1981 and 1982) and post-PPS (July 1985 through June 1986) periods. We gathered clinically detailed data from medical records of patients with one of six diseases and supplemented these data with postdischarge information from Health Care Financing Administration files. We used a stratified multistage cluster sampling design with data gathered on 16 758 patients chosen from 297 hospitals in 30 areas in five states. Our hospital participation rate was 97%; we successfully accessed 96% of the medical records we requested; and our mean item-level reliability score was 0.80. Our sample matches the nation closely on hospital urbanicity, size, teaching status, ownership, and percentages of Medicare and Medicaid patients, and patient demographics and mortality.

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IN 1983, THE Health Care Financing Administration (HCFA) changed the way hospitals were reimbursed for treating patients under the Medicare program.[1] Prior to 1983, hospitals received payment for all services provided, subject to appropriateness review. Since 1983, under the prospective payment system (PPS), hospitals have been paid an amount based largely on flat rates per admission calculated for each of approximately 470 diagnosis related groups. Because the new payment system contains incentive to decrease length of stay and substitute lower-cost services and procedures, concern has arisen that the quality of health care may have declined.

Since 1985, we have been conducting a national study to investigate the effects of the PPS on quality of care for hospitalized Medicare patients. Other articles in this series present our findings.[2-7] In this article, we summarize our design and sampling decisions, give details on the fieldwork involved in gathering our primary data, and present results on the composition and national representativeness of our final sample.

METHODS

Choice of Treatment, Control Groups, and Study Years

The PPS was not introduced in 1983 as a controlled experiment. Instead, before October 1983, hospitals were reimbursed for treating Medicare patients under the old retrospective payment system, and during the year from October 1983 to September 1984 nearly all acute care general hospitals were phased into prospective reimbursement. The exceptions were hospitals in the waiver states—Maryland, Massachusetts, New Jersey, and New York—where reimbursement alternatives to the PPS were used until 1986.

Because the PPS was introduced in