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UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

HUMAN RESOURCES  
DIVISION

August 20, 1985



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C. McClain Haddow  
Acting Administrator, Health Care  
Financing Administration  
Department of Health and Human Services

Dear Mr. Haddow:

Subject: Future Usefulness of Admission Pattern  
Monitoring System Is Questionable (GAO/HRD-85-94)

The Admission Pattern Monitoring System (APM) originally was designed by the Health Care Financing Administration (HCFA) to identify hospitals that had changes in admission patterns as a means of identifying hospitals most likely to have medically unnecessary admissions. APM was less effective than anticipated as a management tool for monitoring hospital admissions because it (1) did not reliably identify hospitals with questionable admissions practices, and (2) duplicated more reliable admission monitoring systems. Recognizing APM's limitations, in January 1985 HCFA informed its regional offices of APM's cessation.

HCFA is considering, however, using APM as a tool to identify hospitals where the effectiveness of the new Peer Review Organizations' (PROs') activities will be comprehensively evaluated. We are concerned that APM could be counterproductive as a PRO evaluation tool in that (1) as proposed, hospital selection would result in information applicable only to the specific hospitals evaluated, rather than findings projectable to a broader universe and (2) the methodology could, in many instances, give PROs advance notification of the hospitals where their work will be more closely evaluated. We would encourage HCFA to consider these factors before making the final decision on this matter and to formulate an alternative evaluation methodology which would allow statistical projection and minimize the opportunities for PROs to predict hospital selection.

BACKGROUND

Until October 1, 1983, Medicare generally reimbursed hospitals for medical services provided to program beneficiaries based on the costs of providing such services. Because of concern that this reimbursement system did not give hospitals

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incentives to hold down costs, the Congress initiated two legislative changes directed at strengthening cost saving incentives. The Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) retained the cost reimbursement system but limited the amount Medicare would pay for each case. In 1983 Congress passed legislation enacting a prospective payment system (PPS) under which hospitals are paid a predetermined amount, irrespective of their costs, for each Medicare discharge. Both the TEFRA modification and PPS shifted hospital incentives toward controlling costs, but also created incentives for hospitals to increase the number of admissions as a means of increasing revenue.

Professional Standards Review Organizations (PSROs) were the primary medical review entities responsible for monitoring hospitals' provision of medical services to Medicare beneficiaries under the cost reimbursement system. They generally focused their utilization review efforts on length of stay and medical necessity studies. HCFA developed APM to help PSROs address TEFRA and PPS incentives for hospitals to increase admissions. APM identified hospitals with rising admission patterns by comparing the number of admissions during different periods. Hospitals with the largest increases were targeted for an investigation of the causes, which generally required PSROs to conduct medical necessity reviews for a sample of cases and to determine why admissions increased. In 1984 PROs replaced PSROs, and HCFA contracted with one PRO in each state to perform certain activities, including APM, designed by HCFA to monitor hospital performance under PPS.

APM AN INEFFECTIVE PRO  
MANAGEMENT TOOL FOR EVALUATING  
HOSPITAL PERFORMANCE

Our review of APM identified weaknesses that raised questions about the system's effectiveness. The algorithm used to identify changes in admission patterns was a weak indicator of hospitals with admission problems and identified many hospitals as having potential problems that, in fact, had none. In addition, APM reviews unnecessarily duplicated other reviews that HCFA's contracts require PROs to perform in hospitals operating under PPS.

We looked at the results of PSRO reviews of 97 hospitals identified by the APM algorithm as having aberrant admission patterns from April through December 1983 in Georgia, South Carolina, and Washington.<sup>1</sup> The PSROs' reviews determined that 36 (37 percent) did not have an admission problem or had

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<sup>1</sup>Nationwide, APM identified 1,084 hospitals with aberrant admission patterns during this period.

admission increases that were not caused by medically unnecessary admissions. In addition, the APM algorithm failed to identify some hospitals that had problems. The algorithm was designed to identify only hospitals that had increased admissions; however, PSRO evaluations found that other hospitals without increases also had problems with their admissions. For instance, in addition to the 61 hospitals APM identified as having admission problems in the three states, PSROs identified another 89, during the same period, that the algorithm did not identify.

We believe the algorithm failed to accurately identify hospitals with admission problems because HCFA made several incorrect assumptions in its design. For example, HCFA assumed that hospital admission rates had been stable. It also assumed that admissions are evenly distributed throughout the year with no seasonal variations from quarter to quarter. Finally, HCFA assumed that admissions in the APM base period (generally the 16 quarters preceding the APM test quarter) were medically necessary.

HCFA's assumptions, however, did not accurately reflect Medicare history. Since passage of the original Medicare legislation in 1965, hospitals have experienced a continual growth in their Medicare admissions. Thus, some hospitals without admission problems tended to show up on APM's aberrant admissions lists because their upward Medicare admission trend had continued. Also, some hospitals' admission patterns display a seasonal trend. For example, many Florida hospitals generally have more admissions in the winter quarter than other quarters. Since the algorithm does not account for such quarterly differences, it identified only the quarter with the highest number of admissions as being aberrant although other quarters were also aberrant compared to similar quarters in other years. Finally, PSRO utilization reviews at Medicare hospitals have shown that admissions of medically unnecessary cases have been a long-standing problem. Our examination of PSRO reviews conducted on cases included in the APM base period showed that many medically unnecessary cases were included. HCFA's assumption that such cases did not exist contributed to APM's failure to identify some hospitals with admission problems.

The APM system of case reviews also generally duplicated the results of reviews performed in the past by PSROs and would duplicate reviews currently required of PROs. For example, of the 61 problem hospitals identified by APM in our test period, PSROs had identified 51 through their other review systems. Nine of the other 10 hospitals were not under PPS at the time, and the PSROs' reviews were not designed to detect admission problems. It is probable that these hospitals would have been detected by PRO admission-focused reviews when the hospitals came under PPS. PROs are expected to review about 25 percent of

all admissions in each hospital, and these reviews would generally duplicate APM reviews.

We expressed our preliminary concerns about APM's effectiveness in discussions with HCFA headquarters officials in September 1984. Although these officials said that APM's direction might need to be altered, they made no commitment to make changes. Later in 1984 HCFA discontinued sending quarterly APM algorithmic data to the PROs which, in effect, temporarily discontinued APM activity. In January 1985, HCFA headquarters notified its regional offices of the cessation of APM activity. The notice recognized that other contractually required PPS medical necessity reviews had "significantly diminished the need for a mandated review system under APM." The notice also cited HCFA's intention to change the focus of APM activity from evaluating hospitals' performance to evaluating PROs' performance.

In February 1985 HCFA officials sent a draft APM instruction describing the proposed changes to their regional offices for comment. It proposed using APM "as one measure of the overall effectiveness of PRO review." Under the proposal, PROs would be required to prepare summaries describing their medical review activities at each hospital identified by the APM methodology and to explain the nature and extent of increased admissions in such hospitals. The focus of APM would, therefore, be redirected from evaluating hospital performance to evaluating PRO performance. As of July 31, 1985, the proposed change remained in draft, and HCFA had not resumed APM activity.

APM QUESTIONABLE AS A  
HCFA MANAGEMENT TOOL FOR  
EVALUATING PRO PERFORMANCE

We agree with HCFA's decision to discontinue using APM as a tool for identifying hospitals for PRO review of admissions practices. However, we are concerned about HCFA's proposed use of APM algorithmic data as a PRO evaluation tool because the weaknesses we discussed above have not been corrected. APM was not effective in the past in identifying problem hospitals, and because the proposal essentially does not change the hospital selection methodology, we see no reason to believe that APM would be more effective under the proposed change.

In addition, the proposal's hospital selection methodology would not result in a sample that would be statistically projectable to the PRO's universe of hospitals, and therefore, it would not support conclusions about the PRO's overall review activities. The history of APM also shows that hospitals appearing on the APM list in one time period tend to reappear in others. This potentially gives PROs an incentive to focus their efforts on those hospitals most likely to appear on the APM list

while giving no assurance that they are the hospitals most likely to have admission problems.

RECOMMENDATION

We recommend that you do not use the APM system as a means of evaluating overall PRO performance.

OBJECTIVES, SCOPE, AND METHODOLOGY

We undertook a survey of APM's usefulness because HCFA officials originally considered APM as the agency's principal mechanism for monitoring the effects on hospital admission practices of the change from the cost reimbursement system to PPS. Our objective was to evaluate the effectiveness and appropriateness of APM as a PRO management tool for identifying hospitals that may abuse PPS. We did this by comparing the results of PSRO reviews of APM-identified hospitals and the PSROs' other reviews in Georgia, South Carolina, and Washington. We made this comparison to determine the amount of unique information APM provided PROs to help them identify hospitals with admission problems. We looked at all the APM-initiated PSRO reviews and other PSRO reviews for periods covering April through December 1983 because they were the most recent completed APM periods available at the time of our fieldwork. We also interviewed PSRO, PRO, and HCFA officials responsible for those states and HCFA central office officials in Baltimore.

When HCFA essentially stopped using APM, we discontinued our work. However, because of HCFA's proposal to use APM to monitor PROs' effectiveness, we decided to prepare this report.

Our fieldwork was conducted from August 1984 through January 1985. We conducted our review in accordance with generally accepted government auditing standards.

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We would appreciate hearing from you within 30 days on whatever action you take or plan regarding our recommendation.

Sincerely yours,



Thomas Dowdal  
Group Director