

Consultant Utilization by Family Physicians in a University Hospital Practice

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All inpatient consultations obtained by family physicians at a university hospital were monitored for 2½ years to determine the number and types of consultations obtained. Overall, 1,017 consultations were obtained on 2,155 patients (0.47 consultations per patient). The consultation rate, however, gradually decreased from 0.56 consultations per patient at the beginning of the study to 0.36 consultations per patient at the end of the study, probably corresponding to cost-containment pressures placed on physicians by increasing involvement with prepaid health care plans. The specialties most frequently consulted were cardiology, gastroenterology, neurology, and pulmonary medicine, which together accounted for more than one third of all consultations obtained.

Consultants are an important resource for family physicians who practice in hospitals. Consultants add depth to patient care, and they contribute second opinions and suggestions for alternate approaches to case management. Most published curricula for training in family practice include "appropriate use of consultants" as an important objective.¹⁻³

Utilization of consultants by family physicians also has economic implications. Prepaid medical care plans such as health maintenance organizations (HMOs) are being encountered with increasing frequency throughout the United States; in some areas of the country, up to 25 percent more patients receive care through prepaid plans.⁴⁻⁶ Because family physicians frequently function as "gatekeepers" in these plans, their behavior regarding utilization of consultants can have a profound impact on the cost of patient care and, therefore, on the financial viability of the prepaid plan itself. Prepaid care plans at university hospitals have frequently been unsuccessful, partly because of the high consultation rates encountered in these hospitals.⁶

Health maintenance organizations and other prepaid care plans require accurate data on consultant utilization by gatekeeper physicians so they can effectively design budgets and staffing structures. This study, therefore, was

undertaken to determine patterns of consultant use by family physicians in a university hospital over a period of several years. The percentage of patients for whom consultations were obtained was monitored, and the types of physicians from whom consultations were obtained were noted.

METHODS

University Medical Center, Tucson, Arizona, is a 300-bed teaching hospital in which the family medicine department maintains an active inpatient service. Adults and children with a wide variety of medical problems are cared for by resident physicians under the supervision of family physician faculty; family physicians also deliver approximately 75 low-risk pregnancies each year and provide care for newborns.

The family medicine department began caring for patients enrolled in prepaid health care plans early in the course of this study. The percentage of hospitalized family medicine patients who were participants in prepaid care plans gradually rose from none (at the beginning of the study) to approximately 60 percent at the end of the study.

From January 1, 1983, until June 30, 1985, all consultations obtained by family physicians caring for hospitalized patients at University Medical Center in Tucson were monitored. All consultations rendered by physicians at University Medical Center were recorded in the medical record on special forms. At the end of each patient's hospitalization, the medical records department reviewed the

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TABLE 1. AVERAGE NUMBER OF CONSULTATIONS OBTAINED FOR EVERY HOSPITALIZED PATIENT

Period	Number of Consultations per Patient
January to June, 1983	0.56
July to December, 1983	0.51
January to June, 1984	0.47
July to December, 1984	0.46
January to June, 1985	0.36

hospital chart of each family practice patient to identify all consultations completed during the hospital stay. Thus, the number of consultations obtained and the specialty of the physician rendering the consultation were identified.

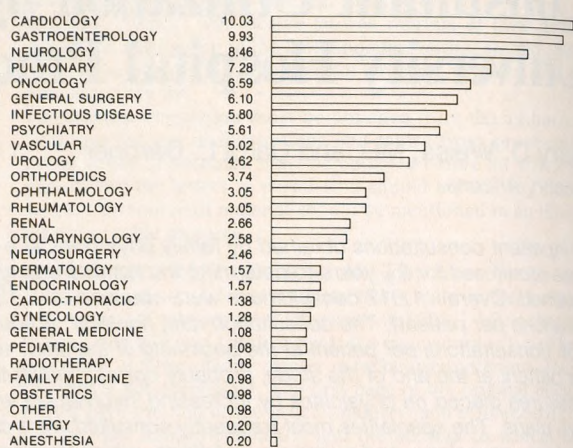
RESULTS

During the 2½ year period of the study, family physicians obtained 1,017 consultations on 2,155 patients at University Medical Center. The consultation rate decreased throughout the study period. During the first six months of the study, the average number of consultations per patient was 0.56. This gradually fell to 0.36 consultations per patient during the last six months of the study (Table 1). The average number of consultations per patient throughout the entire study period was 0.47, or approximately one consultation for every 2.1 patients.

The percentage of consultations obtained from various specialties is shown in Figure 1. The relative percentage of consultations by the different specialties was stable over the course of the study. Cardiology, gastroenterology, neurology, and pulmonary medicine were the specialties most frequently consulted; consultations from these four specialties accounted for more than one third of all the consultations obtained.

DISCUSSION

Three basic findings emerge from this study. First, the results provide information for health planners and family medicine educators about the types and number of consultative services needed by family physicians in a university hospital. The information can be helpful in designing physician staffing ratios and economic structures of prepaid health care plans. It can also be useful for planning elective training experiences for family medicine residents and continuing education courses for physicians in practice.

CONSULTING SPECIALTY PERCENT OF ALL CONSULTATIONS (n = 1017)**Figure 1. Percentage of all consultations obtained by family physicians by specialty rendering consultation**

The second finding of interest is the change, over time, in family physicians' use of consultants. During the course of the study, the average number of consultations obtained per hospitalized patient fell from 0.56 to 0.36 consultations per patient (a net decrease of 35 percent). This decrease occurred during a time when the percentage of hospitalized patients who were enrolled in prepaid care plans increased from zero to over 60 percent. During that time, physicians received frequent education about the need to reduce health care costs by decreasing unnecessary services and testing for hospitalized patients. Presumably, therefore, the incentives of prepaid medicine contributed to the reduction in the use of consultants.

Another possible explanation for the decreasing consultation rate may be an increasing self-sufficiency of the family physicians at University Medical Center. Family physicians may not have required the services of consultants as frequently as they had in the past. It is unlikely that consultation rates decreased because of any change in the severity of illness of the patients, as patient diagnoses, morbidity, and mortality remained essentially unchanged during the study period.

The third finding of significance is the educational and economic impact that family physicians' consultation practices can have on other physicians. During the 2½ period of this study, family physicians at University Medical Center requested over 1,000 consultations from other specialty departments, providing those departments with extensive educational experiences for their trainees. In ad-

dition, if one assumes an average consultation fee of \$75, referrals by family physicians generated a minimum of \$75,000 in potential income for these other specialists. Because many consultations require multiple hospital visits by consultants, the true dollar value is considerably higher. Thus, a family physician's decision to hospitalize patients at one hospital vs another carries considerable significance for physicians and training programs at those hospitals.

CONCLUSIONS

Family physicians at a university hospital obtained on the average one consultation from other specialists for every two hospitalized patients. Medical subspecialists are the most commonly used consultants. Although the frequency with which consultations are obtained appears to be decreasing over time, consultations requested by family

physicians still generate significant educational and financial benefit for other specialties.

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