Communications

Comparison of Different Types of Group Practices in an In-hospital Ambulatory Setting

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Continuity of care and understanding of the patient and his/her family relationships are vital to the responsible delivery of primary medical service. A search of recent literature shows that few studies have been conducted comparing different types of practices to determine the importance to patients of these aspects of their medical care.[1-3] The Ambulatory Care Unit in St. Joseph's Hospital Health Center in Syracuse, New York provides the ideal setting for such a study: housed side by side are a traditional, non-family-oriented outpatient clinic and a family practice model unit. Many family practice residents provide services at the outpatient clinic.

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The purpose of this pilot study is to determine the differences, if they exist, between the hospital's outpatient clinic and the FP model unit in chronic disease management. Basically, the facilities espouse different philosophies: while the clinic physicians see patients apart from their families and on a one-to-two-month rotational basis, the model unit patients stay with one physician during his/her residency and are viewed as individuals within a larger family unit.

Method

Patients having adult onset diabetes were selected as the subjects of this study. Clinic and model unit charts were reviewed and patients were selected who had been using these facilities for at least six months and who had been seen within the previous twelve months. As a result, 53 clinic patients and 58 model unit patients were chosen. The two groups were then matched for duration of disease, type of treatment, other diseases, age, weight, sex, and socioeconomic status. Nineteen pairs were identified and further compared for fasting blood glucose levels, number of visits per six months, fasting blood glucose tests per six months, and number of appointments not kept. The two original groups were matched a second time based on the same criteria except sex and socioeconomic status. As a result, 22 pairs were identified and the same comparisons made again.

Finally, the patients were interviewed by telephone and asked to evaluate the service they attended and their satisfaction with that service (Appendix A). It has been suggested that a 10 to 15 percent dissatisfied response be considered significant as most patient-satisfaction questionnaires result in a high positive response.[1]

Results

Regardless of sex and socioeconomic status, the mean fasting blood glucose levels did not differ significantly between patients of the clinic and the model unit. In comparing the number of visits and the number of blood glucose tests per six-month period, the difference in number of visits was found to be significant ($P = .025$) and the difference in number of blood glucose tests was not significant, $P = .05$ ($P > .20$). (The number of visits and of blood glucose tests were higher for the outpatient clinic.) These values were calculated from paired "t" tests and were the same for both matched groups (19 and 22 pairs). In using this same test to compare appointments not kept, the differences were not significant ($P = .05$): the group of 19 pairs had a difference of $P > .5$ and the group of 22 pairs differed by $P > .4$. (See Table 1.)

The results of the telephone interviews revealed no obvious differences between the two services (Table 2). Most of the patients contacted stated they were satisfied with the service they used and most seemed to comply with their prescribed diet and medication regimes. The difference detected was a subjective one: the family practice patients seemed more enthusiastic about their experience at the

Appendix A

Chart _____ Telephone No. _____

Name of Doctor: _____

Name of Nurse: _____

Name of Secretary: _____

Were you given a diet? _____ What kind? _____ Following it? _____

What medicines were you given? _____

How frequently do you take them? _____

Does your doctor see you too frequently or not enough? _____

Are you able to get an appointment when you need one? _____

Do you have to wait very long at the hospital to see the doctor? _____

Are you happy with the care you are receiving at St. Joseph's? _____

(Why not?) _____

Comments:

model unit and frequently mentioned their physician by name.

During the chart review, it was noticed that the outpatient clinic had poor follow-up of previous visits: several physician-patient encounters were noted between the initial recorded suspicion of diabetes mellitus and actual diagnostic testing. Such lack of efficiency delays necessary treatment and control and wastes money on repeated visits and tests. The same was not found in the model unit charts.

Discussion

In view of the current controversy concerning the value of tight blood glucose control for slowing other manifestations of diabetes mellitus, it is not surprising that there was no difference in these patients' blood glucose levels. However, since these levels are the only controllable aspect of the disease, it is not unreasonable to use them in this type of study.

Though blood glucose control was achieved in both groups, results indicate that fewer visits and blood tests were required of patients attending the family practice service (Table 1). This would indicate that the outpatient clinic system provides similar but less efficient care of diabetic patients' blood glucose levels than does the model unit. The statistical differences are insignificant but the actual numbers indicate a trend which merits more thorough investigation. The same is true for the clinic's slightly higher "no show" rate.

Conclusions

The differences in services delivered by the outpatient clinic and FP model unit do warrant a more in-depth study. Identifying and changing an inefficient system is financially beneficial, but more importantly is necessary to insure the well-being of the patients served. Though this study made no attempt to assess total patient well-being, the number of appointments not kept and the level of satisfaction are indicative of a need for improvement.

Needed for further studies are accessibility to more patients, identification of several chronic and acute diseases to be reviewed, and a computer-coding system for clinic patients

Table 1. Visits and Blood Glucose Tests*

	Mean Fasting Blood Glucose	Mean Number of Visits/Six Months	Mean Number of Blood Glucose Tests/Six Months	Mean Number of Appointments Not Kept
Family Practice Model Unit	188 (181)	2.53 (2.49)	1.99 (2.05)	.10 (.08)
Outpatient Clinic	188 (181)	3.25 (3.33)	2.74 (2.75)	.14 (.13)
P		.025	> .20	> .5 (> .4)

*Parentheses ( ) indicate the group not matched for sex or socioeconomic status.

Table 2. Perceptions of Patients

	Family Practice Model Unit*			Outpatient Clinic**		
	%	N		%	N	
Knew Physician's Name	100	(16)		0	(0)	
Knew Nurse's Name	25	(4)		35	(5)	
Knew Secretary's Name	18	(3)		7	(1)	
Knew Correct Type of Diet	54	(6)	N=11	46	(6)	N=13
Following Diet	54	(6)	N=11	53	(7)	N=13
Knew Correct Name of Medications	75	(9)	N=12	70	(7)	N=10
Satisfied with Program	93	(15)		93	(13)	

*N = 16 of 22 unless otherwise noted **N = 14 of 22 unless otherwise noted

(similar to the system of the model unit). Such studies would help identify and define an efficient, high quality delivery system, and prove, by scientific method, what family physicians know subjectively about their philosophy of patient care.

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