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PATIENT EVALUATION OF DRUG INFORMATION RECEIVED AT HOSPITAL DISCHARGE

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1 INTRODUCTION

Providing drug information is one of the activities that best helps to develop and maintain the relationship between the Pharmacy Service and the rest of the hospital. Currently, most hospital pharmacies have Drug Information Centers whose basic activity consists of answering questions from staff doctors and nurses, as well as the publishing of periodical informational bulletins.

However, it is the drug information that is supplied directly to the patient that which has the greatest effect on treatment, especially if oral information is accompanied by a written reminder. This involves considerable effort, and the process may be facilitated to a great extent by the use of computerized systems.

In some Spanish hospital pharmacies, patient drug information programs have been developed either for individual drugs[1,2] or in the form of explanatory brochures on certain drug groups[3,4].
At the Pharmacy Service of the Hospital de Barcelona, we studied the possibility of offering patients information about the drugs they were prescribed at discharge. After several months' experience, we thought that it would be interesting to verify patients' opinions about this program and to determine the degree of understanding of the information they received. A survey was taken to determine this and its results are described herein.

2 MATERIAL AND METHODS

2.1 Material

The Hospital de Barcelona is a new, private hospital which currently has 250 beds in service in all medical specialties, and is in the process of expanding to a 411-bed operation. The hospital pharmacy distributes drugs in unit doses for all hospitalized patients.
To perform this study we used the hospital's central computer, a 16-MHz IBM 4381-23, to record the demographic data of the patients surveyed. An IBM Personal Computer System/2, Model 30, was also used in the information management process. The program used was INFO (Logister, S.A.), which was developed by the Pharmacy Services of the Hospital Clínic i Provincial and the Hospital de l'Esperança, both of Barcelona.

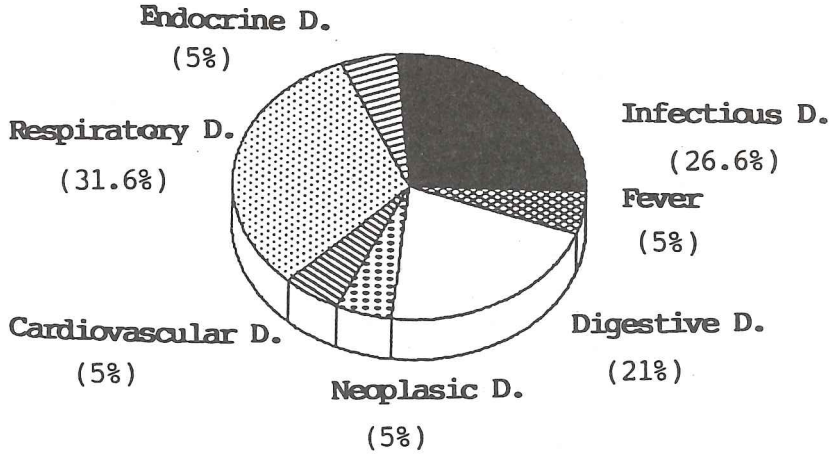


Figure 1. Distribution of Patient diagnostics

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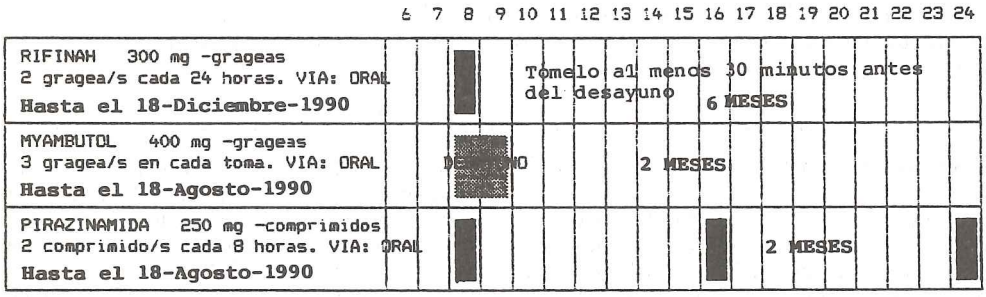
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The patients surveyed were admitted to the Internal Medicine unit of the Hospital de Barcelona between April and June of 1990. The population was fairly homogeneous: mean age was 70 years; the social level was upper middle class. Forty-seven percent of those surveyed were women and 53% men. Insofar as marital status was concerned, 78% were married, 16% widowed, and 5% single. The distribution of diagnoses is shown in Figure 1. Mean duration of stay was nine days.

2.2 Methods

The doctor responsible for each patient advised the pharmacy upon discharge and forwarded a written prescription for medication. The pharmacist developed the information to be provided, bearing in mind the schedule of drug administration that had been followed thus far.

The prescription was signed by the doctor and the information was given either by the pharmacist or the doctor. The information consisted of a schedule showing the time for administration (Fig. 2) of each drug. This schedule was accompanied by a short explanation in easy-to-understand language about the pharmacological action and other aspects of each drug (Fig. 3). A verbal explanation accompanied the written one in all cases. When the patient was considered unable to receive this information, it was provided to an accompanying person.

The survey was taken by telephone by a psychologist from the hospital pharmacy two or three weeks after discharge. It was an objectively phrased survey with a choice of two responses each to a set of six questions (see Table 1).

RIFINAH (rifampicina-isoniazida)

ACCION: Medicamento utilizado para el tratamiento de la tuberculosis(TUBERCULOSTATICO)

CONSIDERACIONES: Tome este medicamento sin masticar, tragándolo con ayuda de un vaso de agua.
Es mejor tomar este medicamento con el estómago vacio y a continuación un vaso de agua tibia.
Este medicamento puede dar un color naranja-marron a la orina, heces, saliva, esputos, sudor y a las lágrimas (colorea las lentes de contacto).
Si usted esta tomando anticonceptivos, comuniquelo a su médico.
Aunque se sienta mejor es muy importante que no deje de tomar este medicamento.

EFECTOS ADVERSOS: Las bebidas alcohólicas aumentan los efectos adversos.
Pueden aparecer ligeras molestias intestinales, náuseas y vómitos. Si alguno de estos síntomas persiste avise a su médico.

MYAMBUTOL (etambutol)

ACCION: Medicamento utilizado para el tratamiento de la tuberculosis(TUBERCULOSTATICO)

CONSIDERACIONES: Tome este medicamento con las comidas o algún alimento para evitar posibles molestias de estómago.
Se recomienda hacerse revisiones de la vista, durante este tratamiento.
Aunque se sienta mejor es muy importante que no deje de tomar este medicamento.
Si olvida una dosis, tómela lo antes posible si no han pasado más de 12 horas, pero nunca duplique o triplique las dosis diarias.

EFECTOS ADVERSOS: Pueden aparecer ligeras molestias intestinales, náuseas y vómitos. Si alguno de estos síntomas persiste avise a su médico.

PIRAZINAMIDA (pirazinamida)

ACCION: Medicamento utilizado para el tratamiento de la tuberculosis(TUBERCULOSTATICO)

CONSIDERACIONES: Tome este medicamento con las comidas o algún alimento para evitar posibles molestias de estómago.
Si usted es diabético o tiene gota comuniquelo a su médico.
Aunque se sienta mejor es muy importante que no deje de tomar este medicamento.

EFECTOS ADVERSOS: Si se le amarillean los ojos o la piel avise al medico.

3 RESULTS AND DISCUSSION

Oral and written information was provided to 40 patients from Internal Medicine. In view of the difficulty of informing all patients, it was decided to select only those who would benefit the most from this service, due to their more complicated treatment regimen. Only 18 patients (45%) were able to be interviewed to evaluate the service.

The mean number of drugs prescribed was four.

The database used included 172 pharmaceutical specialties, the majority of which were in cardiology. Since in our case the information was given to patients discharged from Internal Medicine, it was necessary to introduce additional data in the database, which was expanded by 100 new additions.

Table 1 shows the results obtained from the survey. All patients stated that they had perfectly understood the information provided.

Eighty-eight percent of the patients felt that this type of information was more useful than a simple written prescription and that it facilitated compliance.

All except one (94%) felt that it helped them to reduce errors in frequency and dose.

Sixty-one percent believed that their knowledge of the medications prescribed had improved. The relatively high number of patients who responded negatively could be explained by the high educational level of those surveyed. Eighty-eight percent preferred receiving written information to verbal.

Only one person made suggestions for the program. This was a community pharmacist, who thought that the quality of the information supplied could be improved, although he felt that the program was a good one.

The program was well received by doctors and nurses, who actively collaborated. The nursing staff advised the pharmacy regarding administration times followed in the hospital so that these could be respected to the utmost to avoid confusion. The program has also served to improve drug knowledge of doctors and nurses and to unify criteria regarding drug administration, etc. Other hospital departments have shown an interest in the program, and we are considering expanding it in the future.

4 CONCLUSIONS

- Patient evaluation of the program was positive.
- The information supplied was perfectly understood by those surveyed.
- We believe that it would be interesting to provide information to all patients upon discharge.
- The program was well received by all hospital personnel involved.