

A Study To Determine The Post-Discharge Instructions Follow-Up By Spanish Speaking Parents In Pediatric Emergency Room

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Citation

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Abstract

Objective: A study to determine post discharge instructions follow up by Spanish speaking parents with regards to discharge instructions for a disease specific versus generic discharge from the pediatric emergency room.

Hypothesis: Spanish speaking parents do not have any preference either for disease specific discharge instructions or generic discharge instructions from the pediatric emergency room

Methods: 500 parents volunteered to participate in the study. The instructions were explained to the parents both verbally as well as in a written format in their language of preference with the understanding that they will follow instructions. The parents scored the survey for both generic as well as disease specific discharge instructions as per their choice, using the scoring system. All the parents, 44/500 in the generic group and 410/500 in the disease specific group, were contacted by telephone 2 to 5 days after discharge from the ER to evaluate 5 categories namely diagnosis, clinical information, medication dosages, return to ER, and finally to keep up the follow up appointment

Results: 500 parents participated in the survey study. The survey results show that the majority favor disease specific discharge instructions DSD (410/500) over generic discharge GD instructions (44/500).

However the results of the post telephone call observation was different. After 2 to 5 days, parents (38/44 of GD and 350/410 of DSD) were able to be contacted by phone, and had the following positive responses in all 5 categories. However the results of post telephone call observation was different.

1. Diagnosis (condition of the child) and how the child's condition is improving: GD-36/38 and DSD 340/350
2. Clinical information: GD30/38 and DSD 287/350.
3. Medications prescribed, frequency & dosages: GD35/38 & DSD 340/350
4. Return to the ER when condition worsen: GD 35/38 & DSD 340/350
5. Follow up of appointment: GD 20/38 & DSD 182/350

Both the positive and negative responses in all 5 categories were compared and the unpaired t-test result showed statistically significant differences with a two tailed p-value of 0.0032

Conclusions: Spanish speaking parents have the same preference both for specific disease discharge instructions as well as generic discharge instructions and most of the instructions were followed well.

INTRODUCTION

This was an IRB approved study using an anonymous patient survey. The study was conducted at the Pediatric Emergency Room at the Metropolitan Hospital Center, New York. Our hospital is a major University Hospital affiliated with NY Medical College. Our emergency room has a

separate pediatric emergency department staffed by the attending physicians 24 hours and 7 days/week.

The majority of Pediatric Emergency patients and parents are Spanish speaking (440/500). The majority of the parents who bring their children are women. There were no patient

identifiers.

METHODS AND MATERIALS

The sample size was 500. The sample survey was an anonymous parents' survey with no identifiers. The generic discharge instructions included patients name, chart #, DOB, diagnosis, condition at the time of discharge, list of medications, dosages and frequency of medications and possible side effects, indications to return to the ER before follow up, and follow up appointment. The disease specific discharge instructions contained the diagnosis, detailed description of the condition, medications, dosages and frequency of administrations, side effects and with a follow up appointment. The Survey Scores were both in English and Spanish. For both generic and discharge instructions the parents were given both verbal and written explanations. The parents were then asked to encircle the score in the survey both for generic discharge instructions and as well as for disease specific instructions according to their level of satisfaction, either in English or Spanish.

After 2 to 5 days, the parents were contacted by phone about the condition of the child and how the child's condition was improving. The parents were contacted with their understanding of the disease of the child. The majority of the parents knew about the condition of their child, the medications prescribed, and also appropriate dosages and frequency of medications. The majority of the parents did not really understand the importance of the importance of keeping up the follow up appointments. For discharge diagnoses like croup, bronchiolitis and pneumonias and gastroenteritis the parents were contacted after 1 to 2 days whereas for other illnesses the parents were contacted after 5 days. The majority of them did not really understand the need for a follow up and these parents were reinforced regarding the importance of the follow up.

Regarding the literacy of the parents, the majority of the parents had schooling in their native country (Mexico) up to the 1st or 2nd grade. They could read and understand the instructions in Spanish language. Compared to the general population of the rest of the country, our patients indeed really understood the disease significance and the need to proper administer medications and in their required frequency. They really comprehended well the issues regarding common conditions like URIs, conjunctivitis (pink eye), gastroenteritis, or fractures. They also knew the importance of returning to the emergency room when conditions did not get better. The only thing that they did not

understand was the importance of the need of keeping up with the follow up appointments.

The various diseases conditions encountered in the study period were

Viral syndrome 73/500

Upper respiratory infections not including otitis media 150/500

Otitis media 28/500.

Acute gastroenteritis 46/500.

Pneumonias 6/500.

Acute bronchial asthma 30/500.

Sprains and fractures 9/500.

Lacerations 25/500

Acute conjunctivitis 26/500.

Bronchiolitis 9/500.

Croup 6/500.

Foreign body in the ear/nose/ and throat and foot 8/500.

Epistaxis 2/500.

Preseptal cellulitis 2/500.

Dental problems 4/500.

Superficial abscesses incision and drainage 4/500 (mostly perianal region)

Minor head injury 7/500.

RESULTS

500 parents participated in the survey study. The survey results showed that the majority favored disease specific discharge instructions (410/500) over generic discharge instructions (44/500).

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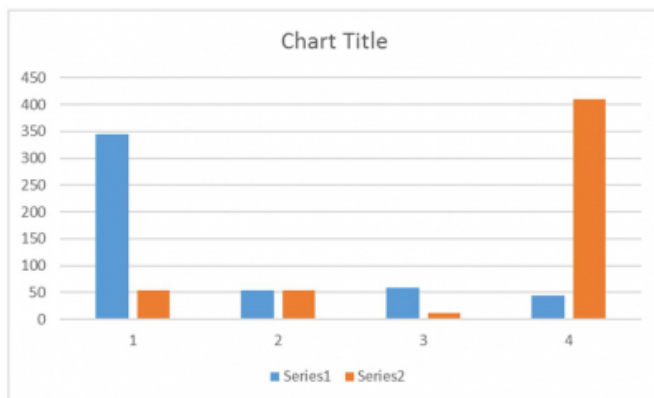
Table 1

• Numbers	Score 1: not acceptable	Score 2: doesn't matter	Score 3: somewhat acceptable	Score 4: highly acceptable
• Generic discharge instructions (500)	• 344/500	• 54/500	• 58/500	• 44/500
Disease specific discharge instructions (500)	• 25/500	• 54/500	• 11/500	• 410/500

- Score 1: not acceptable.
- Score 2: does not matter, it's a waste of time, and I don't read the instructions any way.
- Score 3: somewhat acceptable.
- Score 4: highly acceptable.

Graph 1

Survey study



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1. Diagnosis (condition of the child) and how the child's condition is improving: GD-36/38 and for DSD 340/350
2. Clinical information: GD30/38 and DSD 287/350.
3. Medications prescribed, frequency & dosages: GD 35/38 & DSD 340/350
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5. Follow up of appointment: GD 20/38 & DSD 182/350

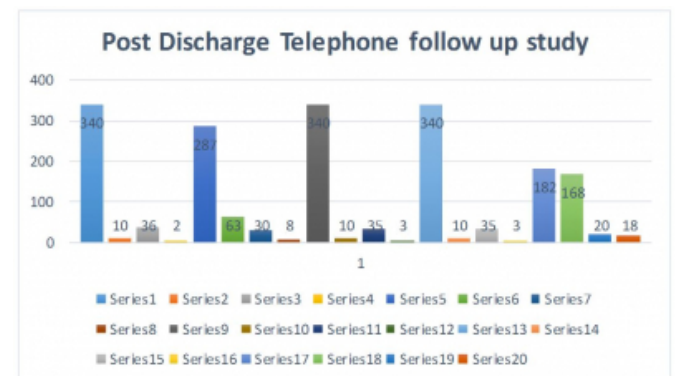
Table 2

Result of post discharge telephone follow-up

Type of Categories post discussed with regards to Discharge Instructions	Telephone response of parents = most accepted to Generic Discharge instructions (38) (+) (-)		Telephone response of parents = most accepted to Disease specific Discharge Instructions. (350) (+) (-)	
Diagnosis	36/38	2/38	340/350	10/350
Clinical information	30/38	8/38	287/350	63/350
Dosage of medication, frequency and duration	35/38	3/38	340/350	10/350
Return to the ER, when the condition worsen	35/38	3/38	340/350	10/350
Follow up appointment	20/38	18/38	182/350	168/350
Unable to contact	6/44		60/410	

Graph 2

Post discharge follow up study:



Categories:	DSD		GD	
Tel. Responses	(+)	(-)	(+)	(-)
#1:Series 1 to 4:	340/350	10/350	36/38	2/38
#2:Series 2 to 8:	287/350	63/350	30/38	8/38
#3:Series 8 to 12:	340/350	10/350	35/38	3/38
#4:Series 12 to 16:	340/350	10/350	35/38	3/38
#5:Series 16 to 20:	182/350	168/350	20/38	18/38
1. Diagnosis				
2. Details of disease condition.				
3. Dosage of medications, frequency & duration of Rx.				
4. Remember to go to ER when the child's condition not getting better or getting Worse.				
5. Importance of keeping up appointments				

Statistical significance: We used the ANOVA hypothesis method.

We reject the null hypothesis when the p-value was less than significant (green alpha) which was often 0.05 or 0.01. Here a low value of p indicates the significance factor. We used either the F ratio or p-value to determine the significance.

Table 3

ANOVA table for the analysis

Source	Degrees of Freedom	Sum of Squares	Mean Squares	F-Ratio	p-Value
Group	1	706880	706880	74.7266	<.0001
Error	18	170272	9460		
Total	19	877152			

From the ANOVA Table it is clear that the difference was statistically significant for 95% level of confidence as the F factor was higher than the critical value and p-value <0.05.

Again, both the positive and negative responses in all 5 categories were compared and the unpaired t-test result show a statistically significant different with a two tailed p-value of 0.0032

CONCLUSIONS

According to our study, for Spanish speaking parents, the disease specific discharge instructions may be more acceptable than generic discharge instructions. On follow up telephone conversations, parents remembered well regarding diagnosis, medication-dosages and frequency of administration, duration of treatment, and return to the ER for condition when not improving or getting worse. However, regarding follow up appointments, parents do not much understand the importance of keeping up with appointments and it needs to be further emphasized at the time of discharge.

DISCUSSION

Our hospital generic discharge instructions essentially contain name of the patient and chart number and patient's diagnosis. It emphasizes the details and the importance of returning to the ER when the patient is not getting better or is worsening; details of medications such as dosages, frequency, or duration, and finally it also contains a telephone number to call for a follow up appointment with a primary care Physician (PCP).

Disease specific discharge instructions, in addition to the patient's name, chart number and the patient's diagnosis also contains more detailed descriptions of discharge diagnosis like otitis media with a diagram of otitis media, causes and management, treatment-dosages, frequency of administration, and total duration of treatment. Finally a telephone number is also given to call for a follow up appointment with the same details as in the generic

discharge instructions, including return to the ER when the patient's condition is not getting better or is worsening.

The physician explained all the aforementioned details to the parents with the parents' acknowledgement that they had received, understood and agreed to a follow up with discharge instructions. The charts were then handed over to the nurse for nurse education. One copy went to the parent, one copy was placed in the patient's hospital record, and the same information was conveyed to the PCP by electronic means.

A provider must take into account a number of factors beyond the medical determinants. These factors include: the patient's cognitive status, the patient's activity level and functional status, the nature of the patient's current home and suitability for the patient's conditions, availability of family or companion support, ability to obtain medications and services, availability of transportation from the hospital to the home and for follow up visits, and finally of the availability of services in the community to assist the patient with ongoing care (1)

Elements of the discharge process include discharge planning and medication reconciliation as well as discharge summary and patient instructions. The important elements in the discharge summary include the outcome of the hospitalization, the disposition of the patient, provisions for follow up care including appointments, statements of how care needs will be met and plans for additional services (eg., hospice, home health assistance, or skilled nursing.)

A study on parental understanding of the discharge instructions conducted by Waisman and Siegal et al showed that diagnosis specific information sheets at discharge from the emergency department had a good overall understanding by the parents but also that the instructions could be further improved with the use of diagnosis-specific information (2)

Another study by Vashi A and Rhode KV. regarding the verbal discharge instructions found that verbal discharge instructions are often incomplete and most often patients are not given enough opportunities to ask questions or confirm understanding (3).

In another study by Issacman, D. and others the effects of standardized instructions for better communication of discharge information were studied. They found both at the exit interview and at the follow-up that parents receiving a form of standardized instructions showed significantly

greater knowledge of information related to their child's illness than controls. They also emphasize that the addition of written instructions to the standardized verbal instructions did not improve parental recall of discharge information (4).

Spandorfer and his colleagues studied discharge instructions in inner city hospitals regarding the adequacy of comprehension to written discharge instructions. According to them overall comprehension rates in the inner-city population were good despite the fact that ED instruction sheets were written at an inappropriately high reading level. Verbal instructions given by the discharging physician likely have a significant effect on patients' comprehension of instructions (5).

Dr. Waisman and his colleagues conducted a study to determine whether parents really understand the emergency department discharge instructions. The study concluded that overall parental understanding of ED discharge instructions was good. However, there remains a considerable number (about 20%) who fail to fully comprehend the diagnosis or treatment instructions and according to this study some patients might benefit with the lay terminology by the staff, institution of special discharge nurse, or use of diagnosis-specific information sheets (6).

A study conducted by Johnson and colleagues regarding the written and verbal information versus verbal information for patients being discharged from acute hospital settings found that providing both verbal and written health information is more effective in improving knowledge and satisfaction than providing verbal information only for parents of children being discharged (7). However, a study conducted by Issacman DJ. and colleagues found that the addition of written instructions to standardized verbal instructions did not improve the parental recall of discharge information (4).

In another study by Williams DM and colleagues tried to determine reading level necessary to understand the commonly used ED discharge instructions and the functioning reading level of adult patients treated in an urban hospital ED. According to their study ED discharge instructions are frequently written at a level beyond the comprehension of a significant portion of the population (8). But even in our Spanish speaking parents the educational level was not a barrier for understanding and comprehending discharge instructions.

Spanish survey Questionnaires:

Un estudio para determinar los padres de genéricos frente preference descarga instrucciones específicas en la sala de urgencias de pediatría.

Generic

Cuestionario son los siguientes

Generic instrucciones de descarga:

no es aceptable.

No importa, es una pérdida de tiempo, no me lea las instrucciones.

Algo aceptable.

Muy aceptable.

Enfermadades específicas instrucciones de descarga:

No es aceptable.

No importa, es una pérdida de tiempo, no me lea las instrucciones.

Algo aceptable.

Muy aceptable.

Survey questionnaire in English

Acceptance of discharge instructions by parents for generic versus disease specific instructions in the pediatric emergency room.

Generic Discharge Instructions:

Score 1: not acceptable.

Score 2: It does not matter, it is a waste of time and

I don't read the instructions any way.

Score 3: somewhat acceptable.

Score 4: highly acceptable.

Disease Specific Discharge Instructions:

Score 1: not acceptable.

Score 2: It does not matter, it is a waste of time and

I don't read the instructions any way.

Score 3: somewhat acceptable.

Score 4: highly acceptable.

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