

# Assessment of Interpreter Modalities in Relation to Unplanned Emergency Department 72 Hour and 30 Days Return Rates in Limited English Proficiency (LEP) patients

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## Introduction

- Limited English Proficiency (LEP) patients tend to receive significantly lower quality of care when they are not provided with a certified medical interpreter.<sup>1</sup>
- Additionally, interpreter errors can occur more often with untrained ad hoc interpreters.<sup>1,2</sup>
- Language barriers may be particularly challenging in high acuity and fast-paced settings such as the ED.<sup>3</sup>

## Methods

- This was a single-center, retrospective chart review of Spanish-speaking LEP and non-LEP ED patients between January and December 2019.
- Exclusion criteria: patients with altered mental status, a psychiatric chief complaint, transferred from an outside hospital, or left without being seen.
- 322 eligible LEP patients  $\geq$  18 years of age were compared to 180 non-LEP controls matched via SQL server by gender, race, ethnicity and date of visit.

## Objectives

- The primary objective of this study is to compare unplanned 72 hours and 30 days return rate as a measure of quality of care when comparing LEP to English-speaking patients.
- The secondary objective was to analyze whether patients who used *ad hoc* interpreters (family members, friends, untrained individuals) were more likely to have an increase in these same metrics when compared to patients who used professional interpreter services.

## References

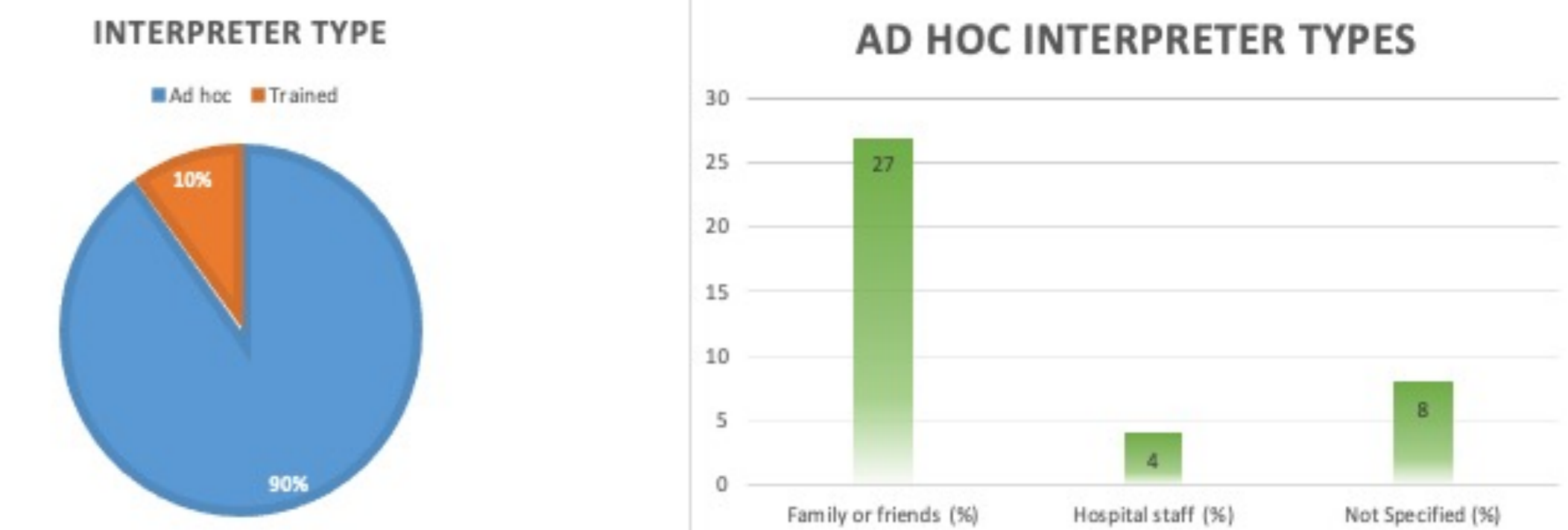
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## Results

Table 1. Demographic Data of Study Participants

Characteristics	LEP (n=322)	Non-LEP (n=180)	P value
<b>Demographics</b>			
Age, years, median (IQR)	52 (40-67)	52 (38.5-66.5)	0.58
Sex, female (%)	181 (56.2)	103 (57.2)	0.83
<b>Ethnicity</b>			
Hispanic (%)	271 (84)	70 (39)	<0.0001
Non-Hispanic (%)	51 (15)	110(61)	<0.0001
<b>Race</b>			
Other %	224 (69)	68 (38)	<0.0001
White (%)	98 (30)	78 (43)	0.004
Asian (%)	4 (1.2)	2 (1)	0.89
African American (%)	2 (0.6)	35 (19)	<0.0001
<b>ED Visits</b>			
< 4 visits in 2019	315(98)	165 (92)	0.001
4 or more visits in 2019	6 (1.9)	14 (7.8)	0.001
<b>Interpreter Usage</b>			
Yes (%)	152 (47)	0 (0)	
No (%)	170 (53)	0 (0)	
<b>Interpreter Type</b>			
Trained Translator (%)	33 (10)	0 (0)	
Family or friends (%)	89 (27)	0 (0)	<0.0001
Hospital staff (%)	9 (4)	0 (0)	<0.0001
Not Specified (%)	26 (8)	0 (0)	<0.0001
<b>Interpreter Modality</b>			
Video (%)	19 (6)	0 (0)	0.001
In-person (%)	103 (32)	0 (0)	<0.0001
Other (%)	32 (10)	0 (0)	<0.0001

Figure 1. Interpreter Usage percentages by type



- LEP patients were more likely to be uninsured when compared to the non-LEP control group (21% vs 10%, p=0.001).
- LEP patients had more unplanned revisits within 72h (9 [2.8%] vs 2 [1.1%], p=0.22) as well as within 30 days (20 [6.3%] vs 7 [4%], p=0.23).
- Interpreter services were documented in only 47% of LEP patients. Of those, the main interpreter modality utilized was an *ad hoc* interpreter instead of a trained interpreter (90% vs 10%, p <0.0001).

## Conclusion

- Our preliminary findings suggest that LEP patients overall have a greater number of unplanned return ED visits when compared to non-LEP patients.
- This may be due to the fact that only 10% of these encounters used a trained interpreter.
- This study provides insight into the important role of trained interpreters and represents an opportunity for improvement in how we can better serve our LEP patient population.