

# Use of Professional Interpreters for Patients With Limited English Proficiency Undergoing Surgery

Jenny Cevallos,BS;  
Carmen Lee, MD,  
MAS; Tasce Bongiovanni, MD  
, MPP, MHS

## BACKGROUND

- Disparities in surgical care for patients with limited English proficiency (LEP) are well documented.
- Access to professional interpreters has been shown to enhance patients' comprehension of surgical procedures and post-operative instructions.
- Factors influencing adequate access to perioperative interpretation among LEP patients remain poorly understood.

## METHODS

- EHR data of adult patients with self-identified preferred language other than English, admitted at an urban academic center for laparoscopic and/or open appendectomy, cholecystectomy, or colectomy from 2019-2020.
- Primary Outcomes: documentation of interpreter usage within the first 24 hours of hospital encounter, interpreter usage at discharge, interpreter usage ever during this admission, and the provision of language-concordant discharge forms.
- Primary Variables: self-identified race, ethnicity, language, gender, and age, insurance status.

For patients with limited English proficiency undergoing surgery, recorded interpreter use is low and **only 12% of patients received language-concordant discharge forms**, which **identify critical opportunities to tangibly enhance care plans' quality & understanding**

## RESULTS

Table 1. Characteristics of Patients

| Characteristic                  | Patients, No. (%) |
|---------------------------------|-------------------|
| Age, mean (SD), y               | 63.8 (17.3)       |
| Age range, y                    |                   |
| 18-39                           | 14 (12.0)         |
| 40-64                           | 36 (30.8)         |
| 65-80                           | 46 (39.3)         |
| >80                             | 21 (17.9)         |
| Gender                          |                   |
| Female                          | 74 (63.3)         |
| Male                            | 43 (36.8)         |
| Race and ethnicity              |                   |
| Asian                           | 13 (11.1)         |
| Latinx                          | 36 (30.8)         |
| White                           | 63 (53.9)         |
| Other <sup>a</sup>              | 5 (4.2)           |
| Primary language                |                   |
| Spanish                         | 34 (29.1)         |
| Chinese <sup>b</sup>            | 46 (39.3)         |
| Other, non-English <sup>c</sup> | 37 (31.6)         |
| Insurance status                |                   |
| Commercial                      | 20 (17.1)         |
| Medicare                        | 62 (53.0)         |
| Medicaid                        | 33 (28.2)         |
| Self                            | 2 (1.7)           |
| Length of stay, mean (SD), d    | 4 (1.6)           |

<sup>a</sup> Includes Native Hawaiian or Other Pacific Islander and multiple races and ethnicities.

<sup>b</sup> Includes Cantonese, Mandarin, and Toishanese.

<sup>c</sup> Includes Russian, Vietnamese, Japanese, Tagalog, Arabic, Farsi, Korean, Punjabi, Bengali, Hindi, Tamil, Telugu, and Urdu.

Table 2. Medical Record Review

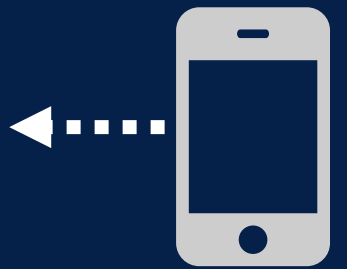
| Finding                                           | Patients, No. (%)             | P value |
|---------------------------------------------------|-------------------------------|---------|
| Documented interpreter uses during admission, No. |                               |         |
| Mean (SD)                                         | 1 (2)                         | NA      |
| Median (IQR)                                      | 1 (1-2)                       |         |
| Interpreter use                                   |                               |         |
| At least once                                     | 103 (88.0)                    | NA      |
| First 24 h                                        | 62 (53.0)                     | NA      |
| At discharge                                      | 4 (3.4)                       | NA      |
| Interpreter use first 24 h                        |                               |         |
| Other                                             | 1 [Reference]                 | NA      |
| Chinese, OR (95% CI)                              | 2.87 (1.17-7.05) <sup>a</sup> | .02     |
| Spanish, OR (95% CI)                              | 2.98 (1.13-7.84) <sup>a</sup> | .03     |
| Language concordant discharge forms               | 14 (12.0)                     | NA      |

Abbreviations: NA, not applicable; OR, odds ratio

<sup>a</sup> Determined by univariate analysis.

## DISCUSSION

- Limited recorded interpreter usage for patients with LEP may be due to underdocumentation, highlighting the inherent limitations in observational analyses of EHR-derived variables. A more reliable metric for assessing deficiency in may be the provision of language-concordant forms at discharge.
- Further study of interpreter access would benefit from structured patient interviews regarding perioperative experience and pain management.
- Efforts to increase availability of language-concordant discharge forms provide critical opportunities to tangibly enhance the quality and understanding of both inpatient and postdischarge care plans of patients with LEP.



Take a picture to download the full paper



University of California  
San Francisco

## Implementation

Since the completion of this study, the UCSF General Surgery Department has undertaken a resident-led quality improvement initiative: Increasing the Use of Language-Concordant Discharge Instructions. English discharge instructions for seven common general surgery procedures were translated into Spanish and Chinese, and made into templates in the HER available to all providers. Data collection is ongoing, but preliminary data (November 2023-January 2024), demonstrate more than half of qualifying patients (85/145) have received the revised, translated, and validated discharge instructions.

**DISCHARGING  
A PATIENT  
WHO SPEAKS  
SPANISH,  
MANDARIN, OR  
CANTONESE?**

Please use the designated  
SmartPhrases for language  
concordant discharge  
instructions

.dci[PROCEDURE]span  
.dci[PROCEDURE]chinese

UCSF Department  
of Surgery