The Association Between Limited English Proficiency and Unplanned Emergency Department Revisit Within 72 Hours

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Study objective: Language barriers are known to negatively affect many health outcomes among limited English proficiency patient populations, but little is known about the quality of care such patients receive in the emergency department (ED). This study seeks to determine whether limited English proficiency patients experience different quality of care than English-speaking patients in the ED, using unplanned revisit within 72 hours as a surrogate quality indicator.

Methods: We conducted a retrospective cohort study in an urban adult ED in 2012, with a total of 41,772 patients and 56,821 ED visits. We compared 2,943 limited English proficiency patients with 38,829 English-speaking patients presenting to the ED after excluding patients with psychiatric complaints, altered mental status, and nonverbal states, and those with more than 4 ED visits in 12 months. Two main outcomes—the risk of inpatient admission from the ED and risk of unplanned ED revisit within 72 hours—were measured with odds ratios from generalized estimating equation multivariate models.

Results: Limited English proficiency patients were more likely than English speakers to be admitted (32.0% versus 27.2%; odds ratio [OR]=1.20; 95% confidence interval [CI] 1.11 to 1.30). This association became nonsignificant after adjustments (OR=1.04; 95% CI 0.95 to 1.15). Included in the analysis of ED revisit within 72 hours were 32,857 patients with 45,546 ED visits; 4.2% of all patients (n=1,380) had at least 1 unplanned revisit. Limited English proficiency patients were more likely than English speakers to have an unplanned revisit (5.0% versus 4.1%; OR=1.19; 95% CI 1.02 to 1.45). This association persisted (OR=1.24; 95% CI 1.02 to 1.53) after adjustment for potential confounders, including insurance status.

Conclusion: We found no difference in hospital admission rates between limited English proficiency patients and English-speaking patients. Yet limited English proficiency patients were 24% more likely to have an unplanned ED revisit within 72 hours, with an absolute difference of 0.9%, suggesting challenges in ED quality of care. [Ann Emerg Med. 2016;68:213-221.]

Please see page 214 for the Editor's Capsule Summary of this article.

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INTRODUCTION

Background

Approximately 55 million people in the United States do not speak English as their primary language, and more than 24 million speak English less than "very well" and are considered to have limited English proficiency.[1] Health care providers, including those in emergency departments (EDs), are required by federal and state laws to provide free language interpreting services for patients who have limited English proficiency.[2,3] The Joint Commission's (TJC's) Patient-Centered Communication Standards RC.02.01.01, effective July 1, 2012, require organizations to keep medical records containing patients' race, ethnicity, communication needs, and preferred language.[4,5] Although these mandates are important steps in being able to address disparities in health care, previous studies have shown that many health care providers do not offer adequate language interpreting services.[6] Physicians' tendency to underuse interpreter services even when available, compounded with a high level of variation in interpreter training when language interpreting services are offered, further complicates clinical encounters for limited English proficiency patients.[7-15] Language barriers may be particularly challenging in the ED, where patients' visits are

Editor's Capsule Summary

What is already known on this topic

More than 24 million Americans speak English less than "very well" and are considered to have limited English proficiency.

What question this study addressed

How do rates of unplanned emergency department (ED) revisit compare for limited English proficiency patients versus those who speak English very well?

What this study adds to our knowledge

Analyzing data from a single New York City ED, the authors found that adult limited English proficiency patients were more likely to have an unplanned ED revisit within 72 hours than those without a language barrier. Although some type of interpreter was used in half of the limited English proficiency patient ED visits, use of a professional interpreter was documented in only 13% of visits.

How this is relevant to clinical practice

Limited English proficiency is a risk factor for unplanned ED revisits for adult patients. Further studies are needed to determine whether use of professional interpreters during clinical encounters reduces unplanned ED revisits for limited English proficiency patients.

by nature unscheduled, potentially making it more difficult to provide language interpreting services, and the limited English proficiency patient population may be at risk for lower-quality ED care.[16-22]

Importance

A major challenge in examining the ED care received by limited English proficiency patients is the lack of a clear clinically relevant quality indicator of ED care more generally. Previous studies have used admission rate as a surrogate marker for quality of care for limited English proficiency patients, yet admission rates can vary as an instance of protective measures by emergency physicians who appropriately fear that language barriers may complicate follow-up.[23-26] The National Quality Forum has proposed unplanned ED revisit within 72 hours of ED discharge as an electronic quality measure.[27-32] Despite its obvious limitations—a revisit is not a simple reflection of the care received during the initial visit; it may be due to disease progression despite appropriate care, or lack of access to needed outpatient care—the rate of unplanned ED revisit within 72 hours of discharge from an ED is becoming widely accepted as a general indicator of quality of ED care.[27-31]

Goals of This Investigation

The relationship between patients' limited English proficiency status and unplanned ED revisit within 72 hours of discharge is not known. We used data from a minority-serving, urban, tertiary medical center ED to evaluate the association between patient limited English proficiency status and unplanned ED revisit within 72 hours. Recognizing that unplanned ED revisits may result from lower rates of initial hospital admission, which could also be due to language barriers in the index visit, we also examined the association between limited English proficiency status and hospital admission.

MATERIALS AND METHODS

Study Design and Setting

A retrospective cohort study was conducted for all patients presenting to the adult ED at Mount Sinai Hospital, a tertiary medical center in New York City, between January 1, 2012, and December 31, 2012. The ED provides care for a socioeconomically and racially diverse patient population, with approximately 100,000 annual visits. Data were obtained for review from the Epic electronic health record Reporting Workbench, an operational reporting application. The institutional review boards at the Icahn School of Medicine at Mount Sinai approved this study.

Selection of Participants

Patients with psychiatric, substance-related, or altered mental status chief complaints were excluded with validated computerized text-parsing algorithm software, Coded Chief Complaints for Emergency Department Systems (version 7.1).[33] We also excluded patients who were dead on arrival, nonverbal because of disease severity, and missing key administrative data (ie, patients' language preference). Finally, we excluded patients with more than 4 ED visits in the calendar year—the most widely used definition of ED frequent user—from our main analysis because they represent a unique population of superusers who might bias our outcomes of interest.[34-39]

For the analysis of unplanned ED revisit within 72 hours, we further excluded patients who presented to the ED within 30 days of a hospital admission because their revisit may have been related to care transitions beyond the scope of ED practice.[40] Finally, we excluded patients with a planned ED revisit denoted by the following primary diagnosis codes: V58 (encounter for other unspecified