Improving the Provision of Language Services at an Academic Medical Center: Ensuring High-Quality Health Communication for Limited-English-Proficient Patients

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Abstract

Purpose
To evaluate and improve the provision of language services at an academic medicine center caring for a diverse population including many limited-English-proficient (LEP) patients.

Method
The authors performed a prospective observational study between November 2006 and December 2008 evaluating the provision of language services at the University of Michigan Health System. The primary performance measures were (1) screening patients for their preferred language for health care, (2) assessing the proportion of LEP patients receiving language services from a qualified language services provider, and (3) assessing whether there were any disparities in diabetes care for LEP patients compared with English-speaking patients.

Results
The proportion of patients screened for preferred language increased from 59% to 96% with targeted inventions, such as training staff to capture preferred language for health care and correcting prior inaccurate primary language data entry. The proportion of LEP outpatients with a qualified language services provider increased from 19% to 83% through the use of staff and contract interpreters, over-the-phone interpreting and bilingual providers. There were no systematic differences in diabetes quality performance measures between LEP and English-proficient patients.

Conclusions
Academic medical centers should measure their provision of language services and compare quality and safety data (e.g., performance measures and adverse events) between LEP and English-speaking patients to identify disparities in care. Leadership support and ongoing training are needed to ensure language-specific services are embedded into clinical care to meet the needs of our diverse patient populations.

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Academic medical centers (AMCs) care for diverse populations, including many patients with limited English proficiency (LEP). LEP for health care is defined as the inability to speak, read, or write the English language at a level that permits a person to interact effectively with health care providers and social service agencies.[1] In 2000, more than 47 million people, or approximately 18% of the U.S. population, spoke a language other than English in their homes, and 45% of these residents spoke English less than very well as reported by the Census Bureau.[2] LEP patients are one of the fastest growing segments of the U.S. population and are vulnerable to disparities in health care.

Effective communication between patients and health care providers is essential to provide high-quality, safe care. Compared with English-proficient patients, LEP patients are less likely to have a usual source of care, use fewer preventive care services, and are less satisfied with their care.[3–5] They are also less likely to comprehend their diagnosis and treatment and adhere to treatment recommendations, and they are more likely to experience medical errors or adverse events than English-proficient patients.[6–10] Those patients who do receive care without adequate language services are less likely to return for future appointments and are more likely to go to an emergency room than patients who received care from a language concordant physician.[11]

In reviewing adverse event data from six hospitals, The Joint Commission, an independent organization which accredits health care organizations for meeting quality and performance standards, found that adverse events in LEP patients were often due to communication errors (53% versus 36%) and more likely to involve some physical harm (49% versus 29.5%) compared with adverse events in English-proficient patients.[10] Although having access to trained professional interpreters and/or language-concordant providers has been shown to improve LEP patient satisfaction and reduce interpreter errors,[12–13] there is a paucity of data on whether this decreases language-related disparities in quality and adverse events.

To help improve communication between health care providers and their

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patients with LEP, the Robert Wood Johnson Foundation developed the Hablamos Juntos program.[14] Because there are more than 37 million Latinos in the United States, the program initially focused on the cultural and language needs of this population. However, the foundation recognized that there are millions of other residents in the United States with LEP who are not Latino. Therefore, they established the Speaking Together: National Languages Services Network, which targets a broader range of individuals with LEP.[15] The program was designed for hospitals to use quality improvement tools and techniques to improve their language services programs for LEP patients through a collaborative learning process. Hospitals selected to participate in the Speaking Together program were asked to focus on one inpatient and one outpatient service.

The University of Michigan Health System was 1 of 10 groups selected to participate in the Speaking Together program. It is located in Ann Arbor, Michigan which has a population that is 72% Caucasian, 16% Asian, 7% African American, and 3% Hispanic. The University of Michigan Hospitals and Health Centers (UMHHC) includes 3 hospitals, 30 health centers, and 120 clinics, and it provides care for 43,000 inpatients and 1.7 million outpatients annually. Although LEP patients represent fewer than 3% of our patients, providing language-specific care is challenging, as our patients speak more than 40 languages, the most common of which are Spanish, Arabic, Chinese, and Japanese. There are over 25,000 interpreter requests annually at a cost of $1.6 million to our health system each year.

We report on how effective our health system was at (1) screening patients for their preferred language for health care, (2) assessing the proportion of LEP patients receiving language services from a qualified language services provider, and (3) assessing whether there were any disparities in outpatient care for LEP patients with diabetes compared with English-proficient patients.

Method

We performed a prospective observational study between November 2006 and December 2008 evaluating the effectiveness of language services provided by UMHHC to patients with diabetes. We used the following performance measures: (1) percentage of patients with preferred language for health care documented in the demographic section of the electronic medical record, (2) percentage of patients receiving language services from a qualified language services provider, and (3) percentage of LEP and English-proficient patients who met diabetes-specific quality criteria based on the *Healthcare Effectiveness Data and Information Set* (HEDIS) quality measures, which are used by more than 90% of managed care health plans in the United States to measure performance on important dimensions of care and service. These quality measures are yearly measurement of hemoglobin A_{1c} (A_{1c}), low-density lipoprotein cholesterol (LDLC), screening foot exams and eye exams, self-management goal setting (non-HEDIS measure), and proportion of patients meeting A_{1c} targets ($\leq$9%), blood pressure (BP) goal ($<$135/80 mm Hg), and LDLC target ($<$100 mg/dL).

We used the University of Michigan Health System's diabetes registry, first established in 2003, to identify patients with diabetes. Patients are entered in the registry if they have a billed diagnosis of diabetes validated by a physician-entered diagnosis of diabetes in the problem summary list, laboratory testing (e.g., A_{1c} $>$6.4% or at least two outpatient blood glucose measurements $>$200 mg/dL), or a prescription for an antihyperglycemic medication (with the exception of metformin which may be prescribed for other conditions). Patients were considered "active" if they had two or more UMHHC outpatient visits within the last two years and at least one visit within the last 13 months. As of December 3, 2008, there were 9,931 patients between the ages of 18 and 80 years in the diabetes registry.

To screen for preferred language, we assessed monthly the proportion of patient records with completed language fields in the demographics section out of the total number of active patients with diabetes in our health system's validated diabetes registry.[16] Receiving language services from a qualified language services provider was defined as using a trained interpreter through a face-to-face encounter, over-the-phone interpreting, or seeing a language-concordant provider. Interpreter presence during an LEP patient visit was identified through the outpatient scheduling system and the interpreter services scheduling database. We assessed use of over-the-phone interpreting through data collected by clinic staff and phone use data. Clinic staff confirmed and documented occurrences of patients seeing language-concordant clinicians.

To integrate the provision of language services into clinical care, we created a multidisciplinary team that included the directors of Interpreter Services, Registration and Admissions, and our Quality Management Program, as well as a Physician Champion, a Nursing Champion, a data analyst, and a project manager. This team met monthly to coordinate language services improvement activities.

To improve the capture and documentation of preferred language, we added a workflow prompt to the computerized check-in system to remind outpatient clerical staff to collect language information on arrival for patients whose language fields were blank. To ensure that the correct language was documented, we changed the language field in the electronic medical record from "primary language" to "language for health care," and staff members were trained to ask, "What language would you prefer to use to speak to the doctor or nurse?" We also developed daily inpatient and outpatient reports showing patients with missing language field data to identify units in which the language field was not being consistently documented (e.g., admissions from the emergency department, direct admissions from the operating rooms, newborns in labor and delivery).

To improve access to a qualified language services provider, we developed an electronic report of LEP patients admitted to the hospital that was sent daily to Interpreter Services. Using these reports, Interpreter Services staff proactively rounded on LEP inpatients to ensure that faculty, nurses, residents, and families were aware of their services and that LEP patients were receiving necessary interpretation. In addition, nurses committed to improving language services were identified as inpatient unit

champions. These nurses were trained to teach other nurses on their unit to ensure interpretation was provided through either staff or contract interpreters or by arranging for over-the-phone interpreting. The nurses also instituted an "on-demand" process to obtain translated patient education materials for LEP patients.

In the outpatient setting, a list of LEP patients scheduled for a visit the next day was programmed to print daily. This list was used by clinic staff to call patients and verify with the patient or caregiver that the patient was correctly identified as having LEP for his or her health care needs. If the patient was confirmed as LEP, staff assessed whether an interpreter was already scheduled to join the patient for the appointment or if the patient's appointment was with a language-concordant provider; if neither of these was the case, staff scheduled an interpreter or arranged for over-the-phone interpreting. If the patient, family member, or caregiver declined the use of an interpreter, staff were trained to explain, "The doctor needs the interpreter to explain medical terminology during the visit, and family members and caretakers are encouraged to come to the visit to support the patient." In addition, the interpreter visits were linked with the patient's visits through the health system's scheduling system, thereby allowing interpreters to be notified if the patient's appointment was cancelled or changed.

To identify language-concordant providers, an e-mail survey was sent to 3,350 faculty, house officers, nurse practitioners, and physician assistants to identify self-reported fluency in non-English languages, degree of fluency (e.g., could conduct a new patient history and physical or could discuss complex sensitive topics), and interest in providing medical care in their non-English language(s).

An additional approach to improve care for LEP outpatients with diabetes was to conduct group visits in the patient's non-English language(s). To date, group visits have been conducted in Spanish, Arabic (separate groups for men and women), and American Sign Language.

We assessed whether the differences in quality indicators for LEP compared with English-proficient patients were significant with the chi-square test using Stata 8.0 (College Station, Texas).

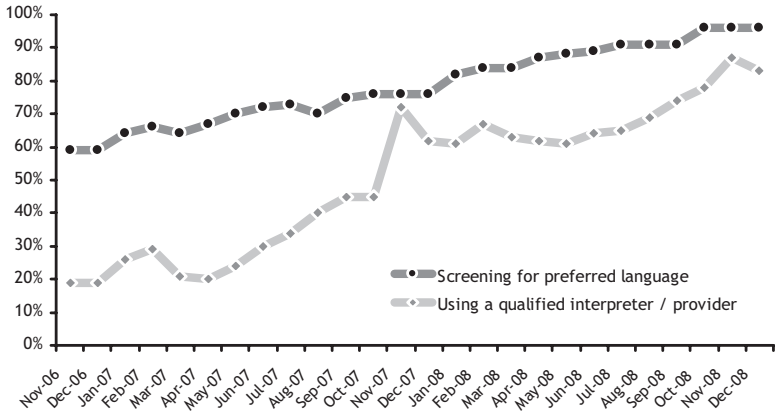

Figure 1 Screening for preferred language and provision of interpreter services at the University of Michigan Hospitals, 2006 to 2008.

Results

In November 2006, 59% of outpatients with diabetes had their language recorded in the electronic medical record. However, 20% of these patients were inaccurately labeled as LEP because (1) some staff had been incorrectly asking patients their primary language (or the language they speak at home), which may or may not have reflected proficiency in English, because many of these patients are also proficient in English, and (2) other staff had mistakenly recorded a patient's country of origin under the primary language field in demographics.

During the two-year study, the proportion of outpatients with diabetes whose language field was completed in the medical record increased from 59% to 96% (Figure 1). Similarly, the use of a qualified language services provider increased from 19% to 83% (Figure 1). Steady improvement was noted on both measures over the study period with ongoing implementation and training across our health system. With respect to quality of care, we found no significant differences in receipt of A_{1c} and LDLC tests, LDLC <100 mg/dL, or in the proportion of patients on a statin medication used to lower cholesterol levels (see Figure 2). LEP patients were more likely to have their $A_{1c} \leq 9\%$, to have received a diabetic eye examination, and to have their BP $<135/80$ mm Hg, but they were less likely to have had a diabetic foot examination or to have set a self-management goal.

Our e-mail survey revealed that 156 providers indicated they could conduct a new history and physical in a non-English language and were considered potentially language-concordant for health care. Two thirds of these respondents ($n = 101$) were confident in their ability to discuss complex, sensitive topics (e.g., a sexually transmitted disease or diagnosis of a terminal illness) in their non-English language(s). Fifty-five percent indicated that they would be willing to participate in an over-the-phone assessment to determine the level of their non-English health care language competency. Overall, 126 of the 156 potentially language-concordant providers were interested in providing medical care in languages other than English. This survey was done in collaboration with the hospital's Office of Clinical Affairs, which added a new field in the Physician Credentialing Database to maintain an institutional resource of language-concordant providers interested in providing medical care in their non-English language.

Discussion

With an increasingly diverse patient population in the United States, health care providers will more frequently encounter LEP patients. Many hospitals and AMCs across the country recognize that quality communication is critical to quality care, but are not measuring the provision of language services and therefore cannot ensure that their patients' clinical needs are being met. Through participation in a language services collaborative, we discovered opportunities to improve language capture, the accuracy of language field data, and the provision of interpreter services. By more accurately identifying patients who truly need a professional

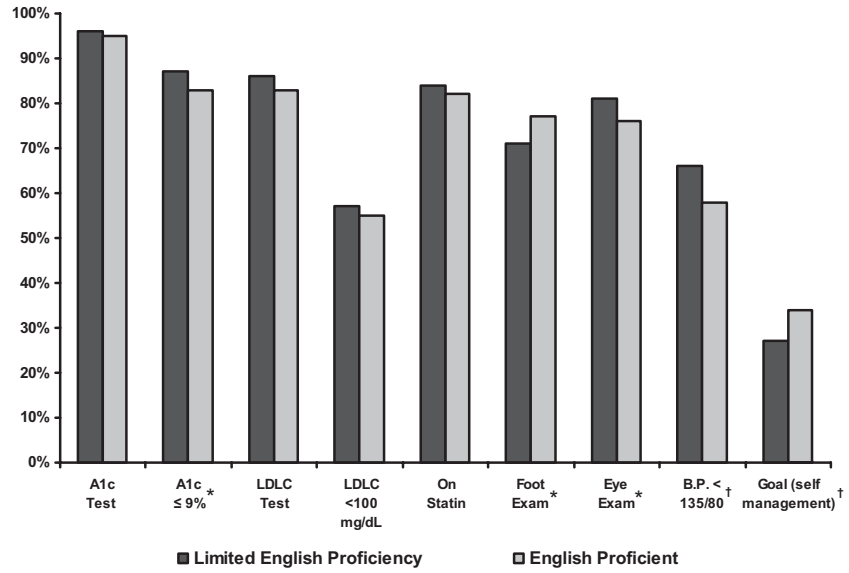

Figure 2 Diabetes quality indicators for limited-English-proficient patients compared with English-proficient patients at the University of Michigan Hospital, 2008.
*$P < .05$; †$P < .01$.

interpreter, the University of Michigan Health System has improved health care communication with our LEP patients.

A major challenge is accurately capturing preferred language for health care. Karliner and colleagues[17] recently reported that the U.S. Census definition of LEP as anyone who reports speaking English less than "very well" is a sensitive but not specific measure for identifying patients unable to communicate with their physician. Adding a question on language preference for medical care significantly improved specificity. Currently, the term "primary language" is commonly used in health information demographic fields. We recommend the language demographic field be changed to "preferred language for health care" and that staff be trained to ask, "What language do you prefer to speak to your doctor or nurse?" This will help prevent recording the language spoken in the home or the patient's country of origin as the patient's preferred language for medical care. This will also allow organizations to comply with The Joint Commission requirement that a patient's language and communication preferences be recorded in the medical record.[18]

Documentation that language services were provided during the patient–clinician encounter is necessary to determine whether a trained interpreter was present or any other type of qualified interpreter services was provided. These data are currently not consistently recorded in the medical record and, thus, are difficult to measure. Failure to capture language services information puts organizations at potential risk of violating Title VI, which requires recipients of federal funds to provide interpretation and translation services so that LEP patients' access to health care services is equal to that of English-speaking patients.[19] To address regulatory requirements and meet the needs of our LEP patients, we embedded the documentation of language services into daily clinical care by linking interpreter and LEP patient appointments in the scheduling system and incorporating information about language services provision in our nursing documentation templates. Electronic medical records should be programmed to allow easy capture of the provision of qualified language services, because it is difficult to capture this information now without medical chart review.

Once data on patients' English proficiency can be accurately captured across health systems, these data should be compared with quality and safety data (e.g., performance measures and adverse events) between LEP and English-speaking patients. In this study, we found no systematic differences in quality of care received by LEP compared with English-proficient patients. Among the measures reported on in this paper, for four measures (A_{1c}, LDLC testing, LDLC <100 mg/dL, statin prescribing) there was no significant difference between patient groups, on three measures ($A_{1c} \leq 9\%$, diabetic eye examination, BP $<135/80$) LEP patients received higher-quality care, and on two measures (foot exam and self-management goal) they received lower-quality care. To examine whether there are differences in quality of care between LEP and English-proficient patients in other areas, we have expanded this work to three other UMHHC registries: asthma, congestive heart failure, and coronary artery disease. We are also interested in studying our adverse events by language. This will demonstrate whether there are disparities in care and allow leadership to focus on improvement strategies. Current evidence suggests that improved outcomes and fewer adverse events occur when LEP patients have access to trained interpreters or language-concordant providers. Published studies are few, but report positive benefits of professional interpreters regarding communication (error and comprehension), utilization, clinical outcomes, and satisfaction with care.[12–13]

One major obstacle to providing interpreter services is lack of reimbursement. Currently, Medicaid and the State Children's Health Insurance Program provide matching funds to pay for linguistic services, but Medicare and most private insurers do not pay for interpretation and related services.[19] Paying for interpreter services up-front may prevent unnecessary tests and procedures, preventable hospitalizations, medical errors, and expensive malpractice suits.[20–22] AMCs should work proactively with government agencies to ensure reimbursement for language services.

There are several limitations to this study. First, this study occurred in a single AMC and may not be representative of language services assessment and provision in other locations. Second, within our health system, this study was limited to the 9,931 patients in the UMHHC diabetes registry; however, we have subsequently assessed language field completion for approximately 400,000 unique patients seen within the past year at UMHHC and have demonstrated similar results. Third, we may be

overreporting use of a qualified language provider, because we gave credit if a patient was seen by a bilingual provider even if we did not have evidence that the provider was truly "language concordant for health care," as only a few providers participated in a validated over-the-phone assessment of their language competency for health care.

Conclusions

The provision of language services is critical for health care organizations with diverse patient populations to ensure high-quality health communication. Language services departments cannot do this alone. Leadership support and ongoing training are needed to ensure that preferred language for health care is assessed and documented and that language-specific services are embedded into clinical care. There is a paucity of research and published studies in this area. AMCs should measure their provision of language services and compare quality and safety data (e.g., performance measures and adverse events) between LEP and English-proficient patients to assess for disparities in care and ensure high-quality care for all patients.

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