Improving Post-Stroke Discharge For Individuals With Limited English Proficiency

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Background

- **Problem Statement:** Stroke is a leading cause of morbidity and mortality in the United States. Individuals with limited English proficiency may experience additional challenges in the aftercare period due to language barriers experienced at discharge. This may result in additional readmissions and worse patient outcomes. Providing resources and community support in the patient's primary language can help circumvent issues and improve the patient-provider relationship
- **Project AIM:** Reduce readmissions among stroke patients who self-identify as preferring to receive care in a language other than English by 25% in one year
- **Interdisciplinary Team:** This intervention will be implemented by the Thomas Jefferson University Hospital (TJUH) neurology department, including attendings, residents, nursing, social work and administrative staff

Baseline Metrics

- Two years of retrospective 30-day readmission data was collected from TJUH and filtered by preferred language listed on EPIC

Language	Denominator	30-Day Readmit Count	30-Day Readmit Rate
Albanian	1	0	0%
Cambodia	3	2	67%
Cantonese	7	2	29%
Chinese	2	0	0%
Decline to Answer	2	0	0%
English	792	75	9%
Filipino	1	0	0%
Gujarati	1	0	0%
Italian	1	0	0%
Mandarin	5	2	40%
Nepali	1	0	0%
Other	1	0	0%
Persian	1	0	0%
Romanian	1	0	0%
Russian	1	0	0%
Spanish	14	0	0%
Vietnamese	4	0	0%

- Preliminary data sampling using two years of ischemic stroke discharges from TJUH suggests Spanish, Cantonese, Mandarin, Vietnamese and Cambodian may be the most common non-English languages spoken by patients seen at TJUH for stroke
- Some discrepancies in readmission were noted (Mandarin, Cantonese and Cambodian), suggesting there may be utility for better communication

Intervention Planning

- After determining an overarching problem to explore (disparity in aftercare outcomes), we created an affinity map of contributing factors
- A potential key contributor was identified (non-adherence to medication and lifestyle prevention), and a comprehensive resource list was generated to provide information in the various high incidence languages
- EPIC dot phrases in Arabic, Chinese, Russian, Spanish and Vietnamese were created with infographics and links to credible resources that can be auto-populated to easily include in patient discharge summaries

Example of Dot Phrases (Spanish)

- Dot phrases will be introduced to residents and attendings during monthly neurology grand rounds, and info sheets will be posted in the call rooms to encourage use
- The intervention will be piloted from April through June of 2022 at TJUH, with 30-day readmission data gathered during this span

Intervention Planning Continued

- Baseline 30-day readmission data will be collected and analyzed for the preceding two years using a more robust set of ICD-10 diagnoses including: ischemic strokes, hemorrhagic strokes and TIAs
- Analysis of the intervention's impact on 30-day readmissions will be performed using SPSS and will focus on two outcomes
  1) Do language-specific resources reduce 30-day readmissions as compared to preceding data for patients speaking each targeted language
  2) How do 30-day readmission rates for patients with limited English proficiency compare to those of primary English speakers during our intervention

Limitations and Future Directions

Limitations

- Most patients seen at TJUH identify as primary English speakers, and thus, we anticipate the sample size being small. This may create issues achieving statistical significance
- Providers must remember to include these dot phrases in their discharge summaries. We hope to enhance recognition by providing reminders and placing fliers in common areas

Future Directions

- Should we find evidence of improving patient outcomes, we hope to extend the intervention and data collection period
- Positive findings may encourage long term evidence-based policy changes within the institution including extension to other departments that provide care to stroke patients (e.g. Internal Medicine, Emergency Medicine and Physiatry)

Acknowledgements

- Robin D'Ambrosio and Deborah Murphy for sharing their readmission dataset
- Matt Metzinger for assistance with data analysis
- Rickie Brawer, Pamela Kolb, Susan Cosgrove and the EQUIP for Equity hub-and-spoke participants for providing feedback and guidance

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