
PURPOSE
To implement an information technology process to increase the number of discharge instructions in Spanish given to those who prefer to read Spanish. Utilize the Electronic Health Record (EHR) Clinical Decision Support System (CDSS) by creating an algorithm to identify Spanish-speaking patients who indicated upon admission a preference for discharge instruction in Spanish. Geographic region is predominantly Hispanic with high concentration of LEP patients who speak Spanish as primary language (U.S Census, 2016). AIM Statement: The implementation of a Clinical Decision Support System (CDSS) algorithm will increase the number of language appropriate discharge instructions given to Limited English Proficiency (LEP) adult patients to 60% within six months of activation.

METHODOLOGY
Lewin’s Change Theory (unfreezing, change, and refreezing) was selected to guide this quality improvement project. Utilized the System Development Life Cycle framework to guide development, implementation, and evaluation of project. Data collection was comprised of plan-do-study-act cycles measuring achievement of improvement of the desired outcome. The IHI Model for Improvement, which encompasses the Plan, Do, Study, and Act (PDSA) cycles (IHI, 2018) was used to guide the iterative process improvement project. The IHI model guided this project by testing changes on a smaller scale before deployment time on a larger scale.

RESULTS
Discharge instructions in patient preferred language (Spanish) increased by 5% over three months. CDSS alert unintentionally improved medication discharge education from 10.2% to 52.5% and general diagnosis disease education from 25.4% to 61.3% between Nov 2017 and Feb 2018. Overall discharge instruction delivery in patient preferred language improved patient communication. Fisher’s Exact Test: p = 0.1975, not statistically significant. Z-Test: Z=-1.6405, p = 0.101 not statistically significant.

IMPLICATIONS

- Develop, optimize, and implement clinical tools that improve the delivery of patient care and communication
- Understand EHR clinical decision support systems and impact evidence-based medicine to improve health care quality
- Inform institutions of technical solutions to EHR problems in healthcare settings