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Edmonton Zone Medicine Quality Council
Partnerships in Action
Strategic Clinical Improvement Committee

Development of a Multi-Faceted Quality Improvement Study to Improve Clinical Assessments and Communication with Patients with Limited English Proficiency

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Background

- Medical Interpretation Services (MIS) is the evidence-based gold standard recommendation for communication with patients with limited English proficiency (LEP).
- Literature shows that when MIS are utilized, there is an increase in preventative measures; patient adherence with their medication & management plans; patient understanding of their disease processes; patient perception of autonomy; and increased dignity within their health journey. Supreme Court of Canada mandates American Sign Language (ASL) used for any patients who are hearing impaired.
- Currently, in-person interpreters are utilized, ranging from trained medical professionals to ad-hoc interpreters, such as family members, bystanders and children. Ad-hoc interpreters increase risk of adverse outcomes by failing to interpret accurately, violating patient confidentiality and triggering trauma. ASL is typically not available through ad-hoc interpretation.
- Trained in-person interpreters are costly & pose availability concerns; however, remote MIS via digital platforms, such as video and phone, are available on-demand and significantly more affordable (Figure 3).
- Cost of remote MIS is covered by the provincial health authority, Alberta Health Services, however it is not consistently utilized across the province. Phone Remote Interpretation (PRI) is the AHS recommendation for most clinical situations due to availability and cost, followed by Video Remote Interpretation (VRI) and lastly, in-person interpretation (IPI). IPI was banned as the COVID-19 pandemic began, leaving only remote MIS tools as viable options for interpretation.

Aim

By Dec 31st, 2020, we aim to implement a process that activates remote MIS usage for any patient with limited English proficiency, in the Emergency Department & Ambulatory Care Centre, in order to improve accuracy of clinical assessment and quality of patient communication.

Method

- The Model for Improvement provided the quality improvement framework to support our project.
- The Donabedian conceptual evaluation framework guided the development of the study measurement approach to determine intervention effect.
- This project estimates the enaction of multiple PDSA (Plan, Do, Study, Act) cycles once the MIS activation process is initiated.

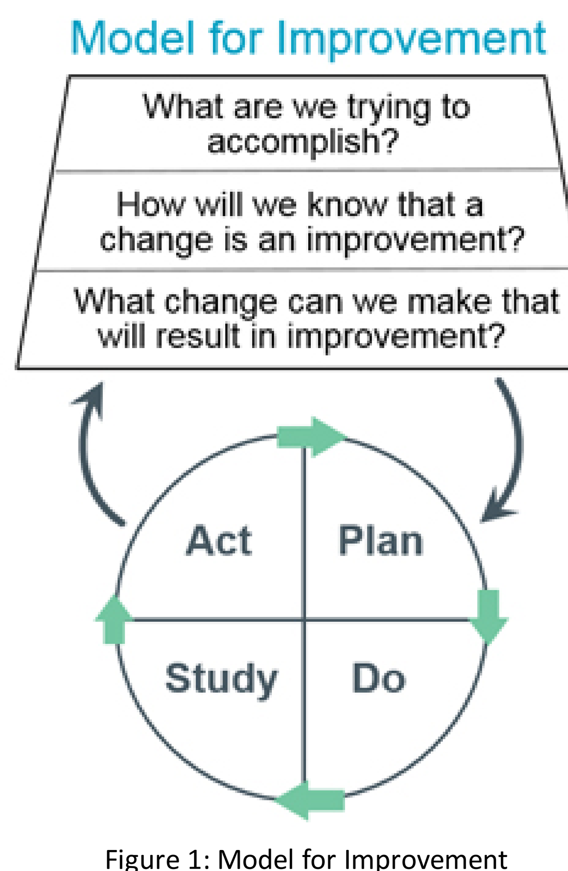

Figure 1: Model for Improvement

Gaps Identified & Proposed Future State

Table 1: Identified Gaps

	Emergency Department	Inpatient General Internal Medicine	General Internal Medicine Ambulatory Clinic
Technology Access	i. Limited access to consistent WI-FI ii. Limited access to telephone during clinical assessment iii. Lack of tablets with Video Remote Interpretation (VRI) application iv. Lack of visible signage in healthcare sites, patient areas, clinical assessment rooms or in digital form v. Indigenous languages are not available via remote interpretation		
Workflow	Was not using VRI before March 24, 2020, thus there may be a lag in incorporating it into regular patient encounters	Lack of clarity on the different modalities and when to use	Standardized process for using MIS throughout the patient journey: from referral letter to end of consultation
	i. There is no standardized flag on referral letter identifying language barrier ii. There is no forced function on electronic medical records (EMR) to identify language barrier iii. There is no automatic reminder on EMR to use MIS iv. There is no standardized process or workflow mandate that outlines consistent usage of MIS for LEP patients		
Training & Awareness	i. Lack of awareness on availability of technology, the various modalities of interpretation, how to use and where to access each service ii. Inaccurate perception of cost: whether service covered by central Alberta Health Services (AHS) budget or individual department; difference in pricing per modality iii. Lack of strategic training sessions for physicians, nurses, allied health and administrative staff on how to use the services. iv. No mention of MIS during new employee orientation v. Lack of defined strategic sponsorship from senior leadership in adoption of MIS		
Understanding of Patient Outcomes	i. There are no audits of patient outcomes or clinical workflow processes around using MIS ii. Clinicians and healthcare workers lack understanding on the importance of using MIS over ad-hoc or no interpretation with LEP patients iii. Lack of understanding of adverse outcomes associated with not using MIS for LEP patients. Lack of understanding of gold standard recommendation of MIS for LEP patients iv. Lack of formal educational sessions around the evidence-based practice of MIS and associated outcomes, at all levels of medical education & practice		
Patient Experience	i. Lowest utilization of medical interpretation services in Edmonton Zone	i. Inpatients unable to communicate needs and updates to medical team increasing risk of adverse outcomes or complications	i. MIS not utilized when patients are called to book appointments ii. Appointment letter to the patients sent in English iii. Increased risk of no-show rates at follow up or initial appointments
	i. Patients do not feel heard or seen ii. Patients unaware of right to medical interpretation or existence of MIS iii. Patient needs not communicated to clinician or healthcare staff iv. Clinician instructions, explanations or counselling not conveyed to patients v. Increased risk of missed diagnoses, missed complications, medication non-compliance, re-admissions and adverse outcomes		

Table 2: Proposed Future State

	Emergency Department	Inpatient General Internal Medicine	General Internal Medicine Ambulatory Clinic
Technology Access	i. Put up visible signage in reception, patient rooms, clinician offices ii. Develop how to guide available digitally		
Workflow	i. Create standardized flag on referral letter identifying language barrier ii. Create forced function on EMR to identify language barrier when inputting referral, triage or chart review iii. Create automatic reminder on EMR to use MIS for all patients with identified language barrier iv. Establish flag on EMR/Triage whenever a patient with language barrier arrives at the Emergency Department or clinic that then triggers a language pathway for that patient, so that each point of their journey, they are spoken to in their preferred language. v. Create standardized process or workflow mandate that outlines consistent usage of MIS for patients with limited English proficiency		
Training & Awareness	i. Create usage infographic/poster prototype describing the various modalities of interpretation, how to use and where to access each service as well as associated cost ii. Create one-page instruction sheet that explains how to use each MIS service and the clinical situations that best fit each modality iii. At time of new hire orientation, include slide or brief presentation on medical interpretation for all healthcare workers, including clerical and administrative support iv. Recruit champions at the organization executive leadership level who can positively influence their direct reports in MIS adoption		
Understanding of Patient Outcomes	i. Create one-page infographic highlighting the evidence behind medical interpretation ii. Disseminate the one-pagers mentioned above to all Department of Medicine physicians, administrators, executive directors and nursing managers iii. Conduct training sessions for physicians and nurses that highlight evidence behind medical interpretation services iv. Present evidence based educational sessions at academic half days for trainees, as well as at grand rounds, divisional meetings for all physicians v. Develop MIS resource toolkit that is available by both paper and digital format		
Patient Experience	Hold targeted training sessions and strategic implementation for all workers in the ED: physicians, nurses, allied health and clerical support	i. Hold training sessions for workers on inpatient GIM wards ii. Create flag on patient door that identifies language barrier	i. Use MIS when calling patients to book appointments ii. Appointment letter translated into patient language and then sent

Multi-Faceted QI Interventions

PDSA 1 — Introduction of Interpreter-on-Wheels (IOW) at ED: March 25, 2020

- IOW is a tablet attached to an IV pole on wheels (Figure 3). The IOW application on the tablet includes both PRI & VRI capabilities. Thus, no additional telephones are required to use the PRI option.
- Disseminated information about availability of IOW in ED. Created docking spot for IOW, located beside ECG machines in high traffic area. Provided MIS usage posters (Figure 4 & 5) at ED.
- Held targeted training sessions for care providers in the ED.
- Conducted a MIS care provider assessment survey to determine next steps to sustain MIS usage (October 2020).

PDSA 2 — MIS Educational Sessions: June 30, 2020

- Resident Physician led training sessions conducted for General Internal Medicine physicians highlighting evidence on MIS.
  Present evidence based educational sessions at academic half days for residents/fellows, grand rounds, divisional meetings.
  Develop MIS resource toolkit for physicians, learners and support staff .

PDSA 3 — GIM Clinic: November 1, 2020

- Put up visible signage, such as MIS usage poster (Figure 4), in reception, patient rooms, clinician offices.
  Create resource toolkit for physicians and clinic staff.
  Establish process of identifying patients with language barrier, by inputting into electronic medical records (EMR) (Figure 2).
- Held training sessions for clinic staff on how to use MIS.
- Programmed all phones in clinic to have PRI feature as speed-dial feature, easing usage.
- Develop physician MIS usage guide for use in clinic and telemedicine.

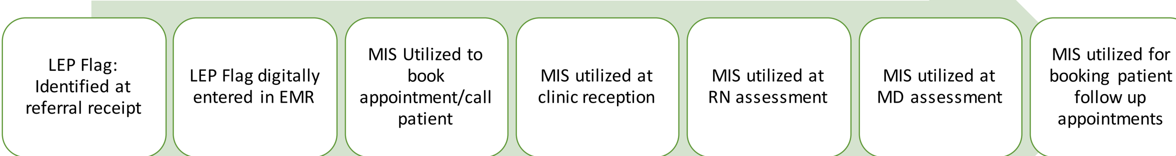

Figure 2: Proposed MIS Activation Clinic Process

Alberta Health Services — Language Interpretation Resources Comparison Guide

	PHONE (AHS Recommended)	VIDEO	IN-PERSON
WHEN to use	Anytime • Routine clinical assessments • Patient instructions • Goals of Care	Anytime • Routine & Complex clinical assessments • Patient instructions • Goals of Care • Hearing impaired	Complex • Lengthy family conferences • Clinical assessments expected to last > 60 minutes
TIME to connect	On-Demand Immediate to 30 seconds	On-Demand Immediate to 30 seconds	Schedule Advanced booking needed
COST	$0.86/min Paid by AHS central budget	$1.55/min Paid by requesting unit	$100/hr Flat Rate Paid by requesting unit
LANGUAGES available	240	40 + American Sign Language *	60 + American Sign Language *
NO SHOW fees	None Dial in when needed	None Dial in when needed	$100/hr Paid by requesting unit
HOW to use	1. Dial 1-866-874-3972 2. Enter 6-digit client ID# 3. Choose language OR 1. Obtain AHS iPad or Video Interpreter on Wheels 2. Confirm Wi-Fi connection 3. Choose language 4. Click on Audio	1. Obtain AHS iPad or Video Interpreter on Wheels 2. Confirm Wi-Fi connection 3. Choose language 4. Click on Video	1. Unit Manager or Triage Clerk calls In-Person Interpretation agency checks Interpreter availability 2. AHS Manager needs to sign off on request 3. Interpreter booked Note: For any changes of cancellations, booking clerk needs to give 24 hours notice to the Interpreter

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* American Sign Language paid by central AHS budget

Figure 4: MIS Usage Poster Showcasing the Digital Platforms, Comprising of Phone & Video Modalities, Compared to In-Person Interpretation

Alberta Health Services — Interpreting Services Available

Figure 5: Patient Information Poster Showcasing Top 20 languages in Edmonton With the Same Message – *"Point To Your Language For Interpreters"*

Figure 3: Interpreter on Wheels

Preliminary Results

PRI
- Total number of calls: 159
- Total number of minutes: 1789

Cost Comparison:
Estimated IPI Cost: $15,900
Actual PRI Cost: $1,538.54
Cost Savings: $14,361.46

VRI
- Total number of calls: 65
- Total number of minutes: 806

Cost Comparison:
Estimated IPI Cost: $6,500
Actual VRI Cost: $1,249.30
Cost Savings: $5,250.70

Figure 6: MIS Usage in ED From March to September 2020

	Mar	Apr	May	Jun	Jul	Aug	Sep
Video Minutes on IOW	35	216	134	75	99	137	110
Phone Minutes on IOW	0	521	364	43	80	386	395
Number of PRI calls in ED	0	48	31	7	6	32	35
Number of VRI calls in ED	6	13	11	5	8	11	11
ED proportion of Total Hospital-Wide MIS	4.88%	37.65%	17.57%	10.71%	10.94%	24.86%	25.27%
ED proportion of Total Hospital-Wide MIS Minutes (VRI + PRI)	2.04%	32.76%	15.76%	6.87%	8.55%	17.38%	21.24%

Table 3: MIS Usage in ED From March to September 2020

- Arabic (20%)
- Swahili (11%)
- Tigrinya (9%)
- Somali (8%)
- Cantonese (7%), Dari (7%)
- French (6%)
- Spanish (5%)
- American Sign Language (4%)*, Oromo (4%)

Figure 7: Top 10 Languages in ED *ASL only available on VRI

QI Matters

The COVID-19 pandemic has highlighted the critical role of accurate communication in delivering timely and accessible care alongside improving reach of public health and safety information.

Effective communication between patients and physicians is an important determinant of the quality-of-care patients receive as well as their overall experience with the healthcare system. By utilizing MIS via remote digital platforms, there is a significant potential to improve patient-centered and evidence-based clinical care to bridge disparities in health delivery and outcomes.

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