



ATiA 2020

Supporting Patient-Provider Communication for Individuals with Limited English Proficiency.

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Speaker Disclosures

Richard Hurtig, Ph.D. is a Founder and the Chief Scientific Officer of Voxello.

He is also Professor Emeritus in the Department of Communication Sciences & Disorders at The University of Iowa. He also directs the UI Assistive Devices Laboratory.

Richard Hurtig has no Non-Financial Relationships to disclose

Richard Hurtig is a Founder of Voxello and has a financial stake in the company.

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- **Saltillo** for assistance in the development of Bilingual Noddle-Chat
- **Chelsea Bilskemper** for assistance with clinical implementation of Voxello technology.

Learning Objectives

- Describe the two components of patient-provider communication that contribute to the communication barriers of patients with limited English proficiency.
- Identify the shortcomings of the two currently used tools to address the communication barriers of patients with limited English Proficiency.
- Describe how a bidirectional AAC tool differs from the two tools currently being used to meet the needs of patients with limited English proficiency. Specifically how do each of these three tools support patient comprehension of their caregivers and their ability to communicate their needs to caregivers.

Communication and Health Outcomes

- Patient-provider communication is a critical component of effective healthcare. For patients to be able to communicate with their caregivers they must be able to summon their caregivers and be able to communicate about their needs and feelings.
- Hospitalized individuals who face physical or linguistic communication barriers are at a higher risk of experiencing preventable adverse events (AE; Bartlett et al., 2008; Cohen et al., 2005; Divi et al., 2007).
- There are nearly three million preventable AEs annually (AHRQ, 2013). As a result hospitals have to absorb a cost of over \$29 billion (Hurtig et al., 2018).

Prevalence of Communication Barriers

- 11% of all hospitalized patients and 33% of conscious patients in intensive care are unable to use spoken or written modes of communication (Zubow & Hurtig, 2013).
- The US census (American Community Survey, 2012-2016) estimates that **21%** of the US population over the age of 5 speaks a language other than English at home and that **9%** of the population can be characterized as having limited English proficiency (LEP).



Legal Mandates

- U.S. Department of Justice Policy Guidance Document "Enforcement of Title VI of the Civil Rights Act of 1964 - National Origin Discrimination Against Persons With Limited English Proficiency" (LEP Guidance).
- President Clinton signed Executive Order 13166 (8/11/2000), "Improving Access to Services for Persons with Limited English Proficiency."
- The Joint Commission hospital accreditation standards now mandates that hospitals address the communication needs of all patients (JC, 2010).
- AHRQ (2012) released "Improving Patient Safety Systems for Patients With Limited English Proficiency: A Guide for Hospitals."

The Role of AAC in Overcoming Communication Barriers

- The use of speech-generating devices has been established as a useful tool to support patient-provider communication in acute care (Costello, 2000; Hurtig & Downey, 2009, Hurtig et al 2015; Hurtig et al, 2019, Marshall & Hurtig, 2019a & b).



- Partnering with Saltillo, Voxello developed ***noddle-chat***TM for use by hospitalized patients.
- The noddle-chat templates support the wide range of bedside communication needs (Hurtig & Downey, 2009; Hurtig et al., 2013; Hurtig et al. 2015).

Current State for Patients with LEP

- The JC requires hospitals to provide patients with the means to communicate in their preferred language. (JC, 2010).
- This requires that written materials be translated and that interpreters be provided.
- Some hospitals have acquired bilingual versions of standard low-tech communication boards.
- Providing interpreters for the wide range of languages needed has been challenging for many hospitals.
- There is a growing reliance on the use of remote interpreter services (e.g. Cyracom).



Unfortunately Utilizing the Interpreters for Routine Bedside Cares Remains a Challenge

- Live interpreters not available for many languages and not accessible 24/7.
- Logistics of using online interpreters who are available 24/7 can be challenging.
 - *Note: at UIHC access is available on the inpatient nurses' Voalte phones.*
- If LEP patient is unable to speak, the interpreter cannot assist in conveying the patient's needs.
- NOTE: Use Google Translate is banned at most hospitals because of accuracy issues
https://youtu.be/BRZ4zci_YUU











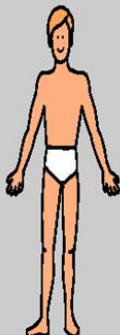
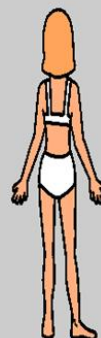















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Low-tech Boards May Not Meet All Bidirectional Communication Needs

- The one size fits all communication boards have not addressed the critical communication that needs to occur as nurses perform bedside assessments and cares.
- These boards are designed for patient-to-caregiver (**P2C**) communication but do not provide any support for caregiver-to-patient (**C2P**) communication.

A	B	C	H	D	E	F	G	H	I	J	K	L	M	N	Ñ	O	P	Q	R	S	T	U	V	W	X	Y	Z
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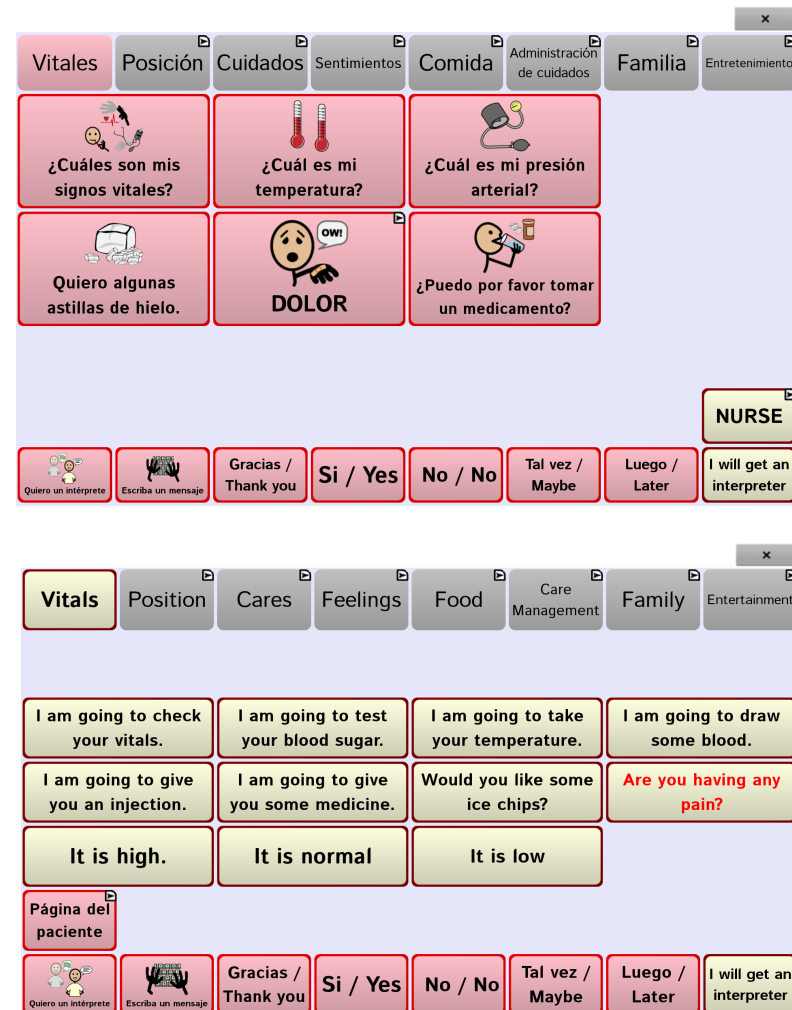
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Bilingual *noddle-chat*TM: Overview

- Content designed for bidirectional communication to meet the needs of patients and caregivers for bedside care.
- Patient to Caregiver (**P2C**)
- Caregiver to Patient (**C2P**)
 - **NOTE:** Not a translation app
 - **NOTE:** Doesn't eliminate need for interpreters for consent, decision making....



Bilingual *noddle-chat*TM: Core Structure

- Topic Tabs
- Thanks/Yes/No/Maybe/Later
- Request Interpreter
- Patient Buttons/ w symbols
 - Text in Patient Language
 - Produces Recorded Message in English
- Nurse Buttons
 - Text in English
 - Produces Recorded Message in Patient's Language



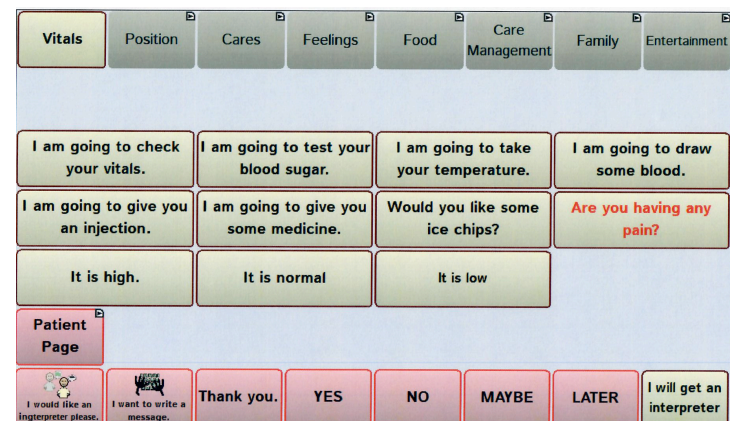
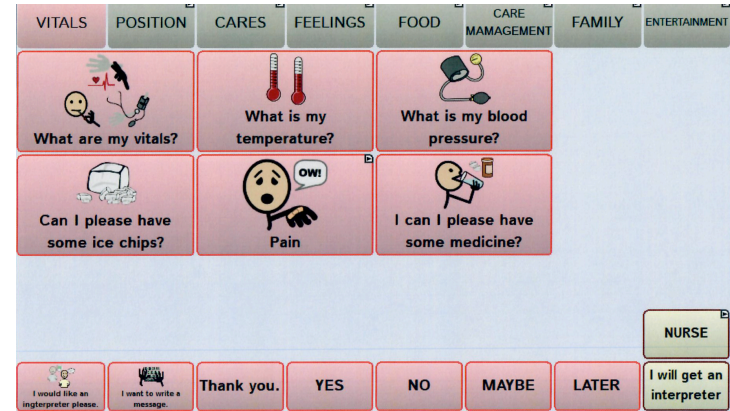
Bilingual *noddle-chat*TM: First Release Languages

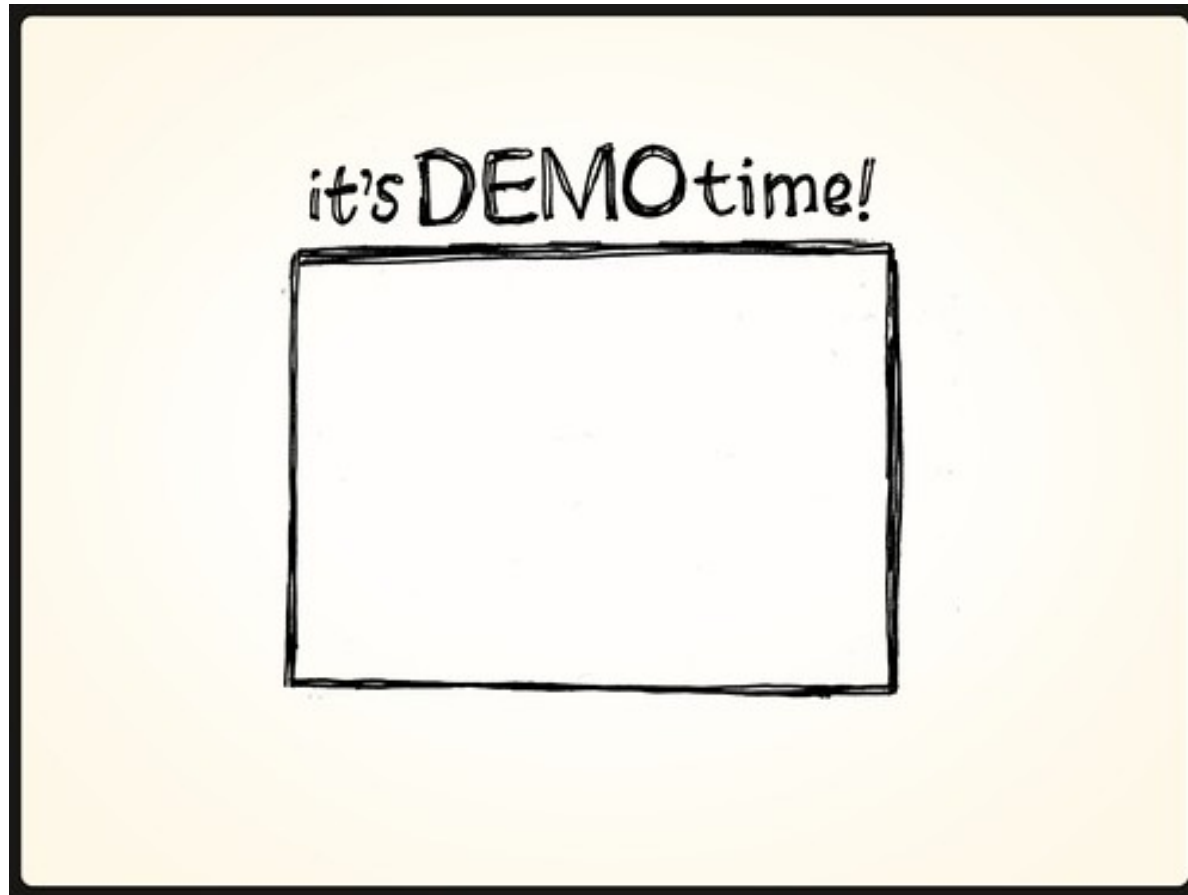
- Spanish
- Arabic
- Chinese
- Filipino-Tagalog
- French
- Hindi
- Russian
- Vietnamese



Bilingual *noddle-chat*TM: American Sign Language

- Topic Tabs
- Thanks/Yes/No/Maybe/Later
- Request Interpreter
- Patient Buttons
 - Text & Symbols
 - Displays video of message in ASL
 - Produces Spoken Message in English
- Nurse Buttons
 - Text in English
 - Displays video of message in ASL
 - Produces Spoken Message in English





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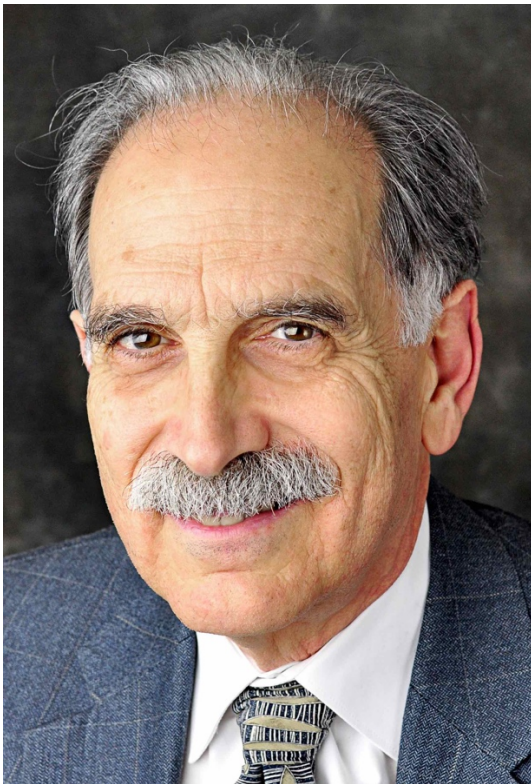
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