Are Patients Lost in Translation? An Interview With Dr. Charles Lee of Polyglot

Sometimes you find the most amazing things in your own backyard. In Research Triangle Park, NC, I found the wonderful Dr. Chuck Lee, President and Founder of Polyglot. I was bemoaning the lack of good translation software for healthcare and Sims Preston, CEO of Polyglot, contacted me on LinkedIn and invited me to see their product Meducation. I was fascinated by Dr. Lee's story and I think you will be too.

Mary Pat: Dr. Lee, you had a very personal reason for starting a healthcare company that focuses on communication in different languages, didn't you?

Dr. Lee: First, as a clinician, I've always believed that we need to help all our patients understand their health information so that they can make better health decisions. To me, it's just common sense that better health outcomes starts with better informed patients. The challenge is that much health information is not usually written with the patient in mind. It's often written in high grade reading levels using medical jargon, and often only available in English. If it is available in another language, it's usually only in Spanish.

About one of every three US adults has some difficulty understanding health information and almost 30 million struggle with the English language – almost 10 percent. Because I am a first generation Korean immigrant – I came to the US when I was 7 years old – I saw how my grandmother struggled to understand how to take her medications. This is

one of the reasons I became interested in this issue.

Mary Pat: How did your own experiences drive your vision for your company 'Polyglot"?

Dr. Lee: It became very apparent that other HIT companies had little interest in serving the needs of minority populations – they said that there's not much money in it. They said it was too difficult, too costly, and that the market wasn't big enough. If you look just at the numbers, yes it may not make sense – but how do we continue to ignore almost 10 percent of the population – thirty percent if you count low health literacy! That's when I decided to form Polyglot Systems to show that creating technology to support language and cultural needs of underserved populations doesn't have to be hard or costly. If our small company can do it, the big guys will have no excuse.

Mary Pat: Can you talk about the state of healthcare communication for non-English speakers in the United States today?

Dr. Lee: Just think about what it would be like for you if you were in another country and they didn't speak English. If you got sick and needed medical care, would you know how to read the signs? Know where to go? Know what forms you are signing? Know what the doctors were saying? What your treatment choices are? Or how to take your medicine if the bottle didn't have English instructions? That gives you a glimpse into what it's like for non-English speakers in the US.

After I saw my grandmother's pill bottles with instructions written in English that she couldn't read, I became aware that this was not an isolated incident. So I asked myself this: How many medication errors are caused by language barriers? Last year there were about 4 billion prescription written – that's not including over-the-counter medications. Just based on statistics, that would mean about 400 million prescription

were given to patients who are limited English proficient. The need was obvious. If you include English-speaking patients who have difficulty understanding health information, this number approaches 1.5 billion prescriptions. Have you seen some of instruction they give you at pharmacies? Even I can't understand what much of it says. Also, a lot of the instructions are printed in such small print that I had a hard time reading them. So one of the features we built into **Meducation** was larger font support for elderly and visually impaired patients.

Mary Pat: It seems that the timing for Meducation is perfect based on the recent emphasis on patient engagement, eliminating waste in healthcare, and increasing medication compliance. How does Meducation address these?

Dr. Lee: For me, it all comes down to common sense. We submitted our first grant proposal to the NIH for Meducation almost 10 years ago – when all those issues you mentioned should still have been issues back then, they just weren't popular things to talk about then.

Healthcare statistics usually say that a minority of the population utilizes the majority of our healthcare resources. This includes those with heart disease, diabetes, CHF, etc. Do we ignore them because they are the minority? Of course not. I bet you that a significant portion of the patients with heart disease, diabetes, CHF have low health literacy and/or language barriers. If we can make even a few percent improvements in these populations, wouldn't it be worth doing? This just made sense to me.

I sometimes like to compare our healthcare system to the cable industry. The cable companies spend tremendous amount on research and expense for laying fiber-optic cables in streets in front our homes. But unless we can connect the home to the corner – what they call "the last mile" – it means nothing. It's the same in healthcare. Unless patients understand and

act to self-manage their own condition, all our advances in healthcare will have little effect. Patient engagement is the last mile.

Mary Pat: How does Meducation interface with EMRs?

Dr. Lee: This is our biggest challenge now. We've developed APIs to make it easy for EMRs to request and download our multi-language patient information. The difficulty has been getting many of the EMR vendor's attention. They are so preoccupied with Meaningful Use and certifications that they have paid little attention to patient education and engagement. But I predict that this will start to turn around as reimbursements will force them to do so.

Mary Pat: Meducation also has videos with demonstrations on medication techniques. What types of videos are available and how can patients view them at home?

Dr. Lee: The videos focus on techniques for taking complex medicines such as inhalers, eye drops, etc., so the patients are actually benefiting from the medicine and not wasting it by using it incorrectly. We want to expand these to include other techniques such as wound care, port care, etc. in the future. The demos are free to patients if their healthcare provider or pharmacies use Meducation. Patients receive a card with the website and video ID so they can view it as often as they like at home.

Mary Pat: Meducation uses a universal graphic that shows patients when to take medication which seems like a great idea for communication despite the language the patient speaks – can you talk about this?

Dr. Lee: Yes, this is called the Universal Medication Schedule (UMS). It was developed by a group of health literacy researchers at Northwestern University and Emory University.

It breaks up medication times into four times of day: morning, noon, evening, and bedtime. Over 90% of all daily meds can fit into this schedule and make taking medicines much easier to follow. The Institute of Medicine (IOM), the American College of Physicians (ACP), and most recently the National Council for Prescription Drug Programs (NCPDP) have recommended its use. I really like it because it helps patients remember with pictures if they have difficulty understanding written instructions.

Mary Pat: You use the word "affordable" as part of your mission for Polyglot. I am always seeking solutions that are affordable in healthcare. Can you talk about the cost of Meducation for a solo primary care physician?

Dr. Lee: You know, I wish I could give this away for free to everyone. But we have to make this a sustainable effort. I've seen so many good projects die because they didn't have a plan to keep it funded and going beyond the grant or some other funding source. This is one of the reasons I left academics to start our Polyglot. That being said, our products need to be affordable for front line providers – safety nets and federally qualified health centers (FQHCs) – because they interact most often with underserved patients – and have the least financial resources.

For provider practices, the subscription list price is $50/mo for unlimited use. That's less than $2 day for the ability to print instructions for all your patients in 16 languages – including elderly English-speaking patients in larger fonts. As a comparison, $2 is about what it cost to use a telephone interpreter for about 1 minute. Mary Pat, we would be happy to provide your readers a discount on Meducation. Just have them contact me at **lee@pgsi.com.**

Mary Pat: What other projects do you have planned for the future?

Dr. Lee: I think the opportunities to improve communication for patients are only limited by our imagination. There is so much that we can do create quality literacy and language solutions and deliver it inexpensively to a wide audience. We are currently working on a solution to reduce hospital readmission through simplified multi-language discharge instructions that can be individualized for each patient. We are adapting this for use during home care visits as well.

Dr. Lee: Polyglot Systems was founded in 2001 to help our US medical community care for the 26 million Americans who are unable to communicate effectively in English. Our mission is to deliver solutions that eliminate communication barriers at every stage of the medical encounter – improving the experience of both the patient and health care provider.

For more information about Meducation, Dr. Lee invites you to visit **the Polyglot website.** He is extending a discount on Meducation to readers of this article – please contact him at **lee@pgsi.com.**

For another post on communicating with patients, read my post "Can Patient Safety Be Improved By Asking Three Questions?" **here.**