

Strategies for an Accurate and Timely Diagnosis

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Introduction

Patients with language barriers represent a special population within a healthcare system. Of course, they are not the only special population, there are a great many. The common element for all of them is increased risk for a certain problem. They all require special handling in the name of patient safety. For instance:

- Immunocompromised patients often require extra precautions with preventing or treating infectious disease
- Pregnant patients require constant consideration of the untoward effects of medicines on embryonic growth
- Patients with cancer are more susceptible to blood clots and often times need extra testing to rule them out
- Patients on blood thinners are much more susceptible to intracranial bleeding, and are much more likely to need a Head CT to evaluate a headache

The list goes on.

So what about patients with language barriers? What special handling do they require and what additional risk are they more susceptible to? Simply put, patients with language barriers require communication efforts beyond those normally used for patients who can self-communicate.

Importantly, we have to ask what the patient safety impacts are if we fail to communicate effectively. Looking at our previous examples, it becomes easy to see how potentially dangerous it becomes for the patient if effective communication is missing.

- If you don't know the patient has had their spleen removed, and is therefore immunocompromised, a simple infection could be catastrophically undertreated.
- If you don't know the patient is pregnant, improper medications may be prescribed.
- If you don't know the patient has cancer, a pulmonary embolus may be misdiagnosed as bronchitis.
- If you don't know the patient is on a blood thinner, a subdural hematoma (brain bleed) may be misdiagnosed as a migraine headache.

As dramatic as it sounds, patients with language barriers may be the "most at risk" patient population. They have a "condition" (a language barrier) that makes it very difficult to understand any special considerations they may require.

The purpose of this white paper is to provide the reader with an analysis of common pitfalls inherent in treating patients with language barriers and some strategies to help decrease risk and increase safety in this important sub-population of patients.

The 2 Risk Management Issues

When it comes to language barriers and risk management, who better than the insurance industry to look to for relevancy? Fortunately, they have already boiled it down to just 2 crucial break points: Failure to diagnose and delayed diagnosis.

Failure to diagnose is undoubtedly the leading cause of poor outcomes associated with language barriers, and it isn't difficult to understand why. If caregivers don't have (or get) the information they need to make safe and accurate decisions, it can hardly be a surprise when things don't go well. It is generally accepted that 90% of the diagnosis is contained in a complete history and physical exam, both of which require speaking or communicating with the patient.

Delays in diagnosis can be catastrophic, depending on what the diagnosis is. If it is an ischemic stroke that began 2 hours ago, a 1.5 hour delay in diagnosis will prevent the effective use of clot busting medications that may fix the problem (there is a 3 hour time limit for using these medications). For many serious infections, the time to antibiotic administration is the key factor that determines outcome. For heart attacks, the mantra "Time is muscle" says it all.

Decreasing risk and increasing safety for patients with language barriers therefore requires addressing the issues of completeness (aka accuracy) and timing. Let's take these two important issues in turn.

Completeness/Accuracy

A complete history is comprised of the following elements:

- Chief Complaint
- History of Present Illness
- Past Medical History
- Past Surgical History
- Medications
- Allergies
- Family History
- Social History
- General Review of Systems

If we add a physical exam to these items, we have the proverbial “90% of the diagnosis.”

Ensuring completeness simply requires that we ask and get an answer for all of the elements above. Of course, accurate answers – not just any answer – are required at the same time. Here are some strategies to help ensure completeness and accuracy with limited English speaking patients.

Schedule enough time. This only applies to those instances that can be scheduled, like a routine checkup and cancer screening. Language barriers may increase the time required to communicate by 50% or more. For spontaneous health issues, like those in an emergency department, scheduling extra time doesn’t apply, but the mandates of completeness and accuracy still do.

Use of qualified interpreters. Almost every national organization emphasizes that qualified medical interpreters are a must when dealing with language barriers in medicine. Many examples abound whereby unqualified interpreters misrepresented either the question, directive, or answer that is being transferred between caregiver and patient. The classic example of an interpreter directing that an oral antibiotic be put in a child’s ear is representative of the pitfalls in using unqualified interpreters.

Be careful when using ad hoc interpreters. What about ad hoc interpreters (family members, friends, etc.)? Is there a role for these resources in healthcare delivery? Though generally not recommended by health care organizations, numerous published studies show that family members are often relied upon, even when professional interpreters are available. This is where research, public policy, and reality all meet in a discordant manner. It is not hard to understand why. Imagine that you speak English and Spanish fairly well, and you are traveling with your husband, (who only speaks English) in a country where Spanish is the predominant language. Imagine further that he develops some mild chest pain and that he has a history of a heart attack in the past with similar symptoms. How would you feel if your Spanish speaking doctor didn’t listen to you as you tried to describe the situation? How would you feel if he tried to ask your husband questions in Spanish, to no avail, and then didn’t allow you to interpret for the both of them? Frustration seems the most minimal of emotions you would feel, and outright anger and anxiety wouldn’t be surprising. Certainly, no matter what the mandate or recommendation, using bilingual family members and friends who accompany a patient will always be a part of delivering healthcare to patients with language barriers. The key is to remember that a higher error rate of interpretation should be assumed and it will correlate directly with the complexity of the problem. If at all possible, a qualified interpreter should be accessed to verify crucial bits of information and ensure that vital directions are effectively transferred to the patient. In addition, some state regulations actually mandate this.

Make use of bilingual forms and questionnaires when available. Bilingual medical forms that ask medical history questions in a patient’s own language should be employed for the same reasons they are used in same language encounters all over the world. They are efficient, proven to be effective, and provide a template to make sure all important information is asked and answered. When was the last time you saw a new physician or dentist and didn’t have to fill out a questionnaire first? These forms have a proven functionality that is ultimately focused on the patient’s safety, and not on the caregiver’s convenience. It is ironic that questionnaires are regularly used as quality instruments to increase safety and decrease risk for same-language encounters and yet rarely used for patients with a spoken language barrier, where they could have an exponentially higher impact.

Use valid questions to get valid answers. Whether you are using a professional interpreter, an ad hoc interpreter, your own skills, or a questionnaire, it is important to be vigilant for poorly worded or ambiguous questions. Poor questioning leads to inaccurate answers, which deserve both the patient and the staff. While it is generally accepted that open-ended questions are the best style of question (“tell me how you’re feeling”), they are often viewed as time-consuming. Eventually, caregivers resort to asking closed ended questions (“Are you having pain in your chest right now?”). Let’s look at how some typical medical questions can be misunderstood by a patient.

D Doctor

P Patient

R Reality

D Do you have any chest pain?

P No.

R The patient has pressure in his upper abdomen and doesn’t think of it as a pain, or in his chest.

D Do you have any other medical problems?

P No.

R The patient doesn’t consider his untreated hypertension and diabetes a problem because they cause him no pain.

D Have you had any surgeries?

P No.

R The patient had his spleen taken out when he was a teenager but that was an operation not a surgery.

D Do you have a history of hypertension, diabetes, a liver problem, hypercholesterolemia, a heart condition, or cancer

P I had skin cancer as a young man.

R *The patient also has high blood pressure and diabetes but the question stem was too long and he was unfamiliar with some of the terms.*

It is easy to see from the examples above that seemingly valid medical questions can receive a seemingly valid answer and yet entirely miss the point. Let's use the stream of examples above to see how careful questioning paints a different picture.

D Do you have any pain or discomfort in your chest or abdomen?

P I do have a squeezing feeling right below my breastbone.

D Do you have hypertension?

P What is that?

D High blood pressure.

P Oh yes, I've had that for years.

D Have you ever been diagnosed with or treated for diabetes or sugar?

P I was told I had sugar in the past but I never found out for sure.

And so on.

This is the same patient and same doctor, but better questions lead to more accurate answers with the clinical picture improved significantly.

To repeat, complete and accurate histories are the most important contributor to patient safety and are best obtained by:

- Scheduling enough time for encounters
- Using qualified interpreters
- Recognizing limitations of ad hoc interpreters
- Using bilingual forms when available
- Asking open-ended questions or carefully worded closed-ended questions

Timeliness

Now that we've discussed completeness and accuracy as main components of patient safety with regards to language barriers, let's look at that other important contributor: Timeliness.

As we have already touched on, certain medical conditions or problems require quick action. Heart attacks, strokes, certain infections, intracranial bleeding, and fetal distress are just a few familiar medical problems that demand emergent action. Failure to diagnose these conditions (and many others) in a timely manner can have the same effect as missing the diagnosis entirely.

Timeliness is a street that goes both ways for patients and caregivers

alike. Patient's need early and effective assessment due to their own specific health needs. Caregivers, who are seemingly always pressed for time, need tools that allow them to maintain their productivity, and to quickly and accurately assess patients.

Let's now evaluate various opportunities in decreasing time requirements for diagnosis, while maintaining completeness and accuracy. Our focus will be on the initial part of an encounter. Later considerations such as informed consent, discussing diagnoses, explaining medications, and providing language specific discharge instructions are all very important, but fall outside the scope of this paper.

When a patient with a language barrier arrives with an acute complaint, such as chest pain, the initial goal is to assess the patient for life threatening conditions and transfer that information to the caregiver(s). This is typically done via some sort of triage system wherein the patient is briefly evaluated, vital signs are obtained, and an overall assessment is made regarding the likelihood of an emergent problem. At this stage, several language specific timing considerations apply:

Preparation and organization are key – An in-place mechanism to rapidly obtain interpreter services for the initial assessment is potentially life, sight, or limb-saving. Some hospitals rely on bilingual staff members or dedicated staff interpreters at this point and others rely on "Over-the-Phone" or video interpreters. These strategies are all generally acceptable as long as they have been well implemented. Phones or other equipment must be easy to find and use, and in-house interpreters should be available within minutes. The use of ad hoc interpreters such as family members or friends often happens at this point because staff members believe the value of immediate communication more than offsets the known risks of transferring potentially inaccurate information.

For those hospitals that rely on the strategy of calling an outside agency to deliver an interpreter, some form of "effective" assessment must occur before the interpreter's arrival.

Learning 30-45 minutes after the patient arrives (a common time delay associated with outside interpreters) that they have an emergent problem may be too late. For instance, a patient who presents with vomiting could be suffering from an intracranial bleed, a heart attack, bowel ischemia, a severe allergic reaction, a ruptured aneurysm, or a sight-threatening eye problem. All of these potentially devastating conditions are worsened by a delay in diagnosis. A backup interpreter method that is available within minutes should be in-place for all but the most minor of presentations.

Bilingual health questionnaires can help - Another method of transferring information on initial arrival is via the use of a bilingual health

questionnaire. A patient who cannot communicate verbally will usually be able to answer written questions in their own language. If for some reason they cannot, a family member or friend can often do it for them. If the situation requires the use of an ad hoc interpreter, a pre-printed bilingual health questionnaire will augment their ability to transfer information to the staff. Importantly, the ad hoc interpreter's task is reduced to reading medical questions rather than interpreting spoken questions that are perhaps beyond their ability to understand or effectively re-word in the patient's language. In order for this strategy to work effectively, two important considerations apply; (1) Bilingual questionnaires cannot be used as a sole source of information gathering and transfer, and (2) they must be properly constructed and professionally translated from a medically qualified source.

Beyond the initial assessment – Once a time-critical diagnosis has been excluded, the focus shifts to obtaining a correct diagnosis. Time considerations in this phase are centered on staff efficiency. Specifically, the goal for the staff should be to gather the “usual” amount of health information in the “usual” amount of time. This is, of course, easier said than done, but a good solution using multiple strategies is obtainable.

As the saying goes, “Fast, reliable, and cheap, pick any two”. Applying this to common interpreting situations ferrets out the two that most apply.

Simultaneous interpretation using medically qualified interpreters arguably represents the quickest and most reliable method, but true to the saying, is also likely to be the most expensive. In this method, multiple interpreters are typically used along with microphones and headsets to interpret what is being said as soon as possible. There is no waiting for a sentence or thought to be completed before interpretation begins. This method is used at the United Nations, and has been studied in the medical environment. As expected, fewer errors of omission and misinterpretation occur and time requirements are minimized compared to the alternative method of consecutive interpretation.

Consecutive interpretation is the current standard employed in the medical industry. Although slower than simultaneous interpretation, it is widely available and doesn't require special equipment. This method also may require less “set-up” time which may offset the increased time required for the actual interpretation event. Importantly, because consecutive interpretation requires interpreters to listen to, understand, and then recall in detail whatever is said by the participants, short question stems and answers are recommended for accuracy's sake. Unfortunately, short question stems lead to increased time requirements, and a tension is often created as busy staff members resort to broad or bundled questions in an attempt to get a lot of information quickly. Speeding things up in this environment often leads to increased errors, amply validated by research.

Many methods of consecutive interpretation are available.

- In-person services are great when they are timely.
- Over-the-phone services are generally cost-effective and easy to use, and
- Video interpreting is certainly a great melding of the advantages that in-person and readily available phone interpreters offer.

Ad hoc interpreters deserve some special attention at this juncture because, although an argument can be made that their services are necessary and useful early on in the encounter, there are many drawbacks to using them for all interpreting needs. Family members or friends must be considered an unknown quantity, and any services they provide may be inadvertently inaccurate, inhibited by cultural issues regarding age or sex, or perhaps even purposefully manipulated (i.e. in domestic violence where the perpetrator is being asked to interpret for the victim). Hence, the reason for professional interpreting services. Avoid or bypass them at perhaps your own, and your patient's peril.

Having built upon the notion that any solution to language barriers is limited by the "fast, reliable, and cheap" mantra, we should consider again that bilingual questionnaires may be the exception to the rule.

Given that health questionnaires are ubiquitous and accepted information-transfer devices in same-language encounters all over the world, their effectiveness stands at face value. Since they are usually filled out autonomously by a patient, they do not require much, if any, of the caregiver's time. They can also be very thorough in their design. It seems they are an intuitively fast and complete method to transfer certain types of information.

Since questionnaires are everywhere, most patients know what to do with them, and when the questionnaire is well designed, the patient understands the meaning of each question and the relevance to their care, so they tend to be reliable as well. Lastly, when comparing the use of questionnaires to the time required of a well-paid caregiver to ask the same questions in person, it's a "pennies to dollars" comparison. Suffice it to say, questionnaires are cheap!

Summary

In this paper we've highlighted many important patient safety considerations as they apply to language barriers in medicine. Certainly, there is much more information and thought available on this subject.

However, by focusing on the two most important contributors to safety,

namely delays in diagnosis and misdiagnosis, we have touched on perhaps the most important issues when treating limited English speakers.

In review:

- When applicable, schedule enough time for completeness;
- Access and use qualified interpreters at some point in every patient's care;
- When working with an interpreter, use careful and succinct wording to minimize errors;
- Know the risks and limitations of ad hoc interpreters;
- Use bilingual questionnaires to increase efficiency and ensure completeness; and
- Have a well thought out, fail-safe strategy in place for those occasions when language is a barrier, and time is of the essence.

The reader is encouraged to evaluate their current strategy for language barriers in light of the above patient safety considerations.

Together, they can be viewed as a simple checklist for the most basic, and yet, the most important considerations that apply the next time you and your patient speak two different languages.



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Currently serving as an emergency physician with Emergency Medicine Specialists, Inc., Dr. Huizenga's emergency room experience goes back 25 years. In that time, he has been confronted with the difficulties that language barriers present to effective doctor-patient communication. That understanding has been fundamental in the development of BiMedical.net.

Dr. Huizenga served nine years as an F-15 Fighter/Instructor Pilot in the U.S. Air Force and Air Force Reserves before earning his medical degree from the University of Michigan, graduating Cum Laude. He completed his residency at Wright State University School of Medicine and has been published in Academic Emergency Medicine and Annals of Emergency Medicine.