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## Preventing Medical Errors

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- [Amy] And at this time it is a pleasure to introduce Lori O'Hara this afternoon, who is presenting on preventing medical errors. Lori is an SLP with over 25 years of experience in acute and post-acute settings. She's an advocate for the role of rehabilitation and interdisciplinary treatment for the care of medically complex patients. She spent two years working in the National Health Service in the United Kingdom, where she expanded the role of SLPs in the emergency room setting. She is currently a regulatory and reimbursement specialist for Ensign Services. So welcome, Lori, it's always a pleasure to have you with us.

- [Lorelei] Thank you so much. All right, good afternoon everybody and thank you so much for being here in these very interesting times. It's a unique time to be thinking about our profession as a whole and our kinship with those in the health systems right now and what it means to be in the health system right now, as a provider or as an adjacent provider. Whether or not you are an acute hospital SLP, helping wean patients off ventilators or a school SLP, trying to figure out how on earth you are going to keep your kids from losing any ground while you are managing a case load through distance learning or whether or not you are an SLP in an administrative role, racking your brain for the most creative ways to support and protect the people you work with, I'm thankful for you and I hope that you are all healthy and safe and maintaining as much sanity and spirit as is possible to do right now.

I'm actually looking at that photo of myself and thinking, wow, I have aged a lot in the last seven weeks, as I'm sure we all have. So, today we're gonna talk about prevent medical errors. Just a heads up about the content, it does obviously, skew heavily towards the medical environments and a lot of research comes out of our acute systems and our post-acute systems because that takes up the bulk of course, of the healthcare product that we have in the United States. Again, for our school SLPs, I see you and I hope that there's good information in here, just in terms of standards of

practice and then of course, helpful if you move in between healthcare environments, as we all so often do through the course of our careers. So we're gonna talk about the characteristics of medical errors, how we categorize and classify them here in the U.S.. We'll talk about the root causes of those, the way they impact the health system and then some of the very specialized ways, that we as SLPs, can help mitigate that problem. All right, so I do get paid an honorarium by SpeechPathology.com but I do not have any other financial conflicts of interest that need to be disclosed. I have no product associated with the delivery of this presentation for medical errors. I am presenting this course as through SpeechPathology.com.

The goal for you, as we work through this material and wrap up, is that you will be able to identify the most common types of medical errors and their underlying causes, at least in the way that we identify them here in the U.S., that you'll be able to identify the impact of those medical errors on clinicians, as well as on patient safety and that you will have multiple strategies that you can put in your toolkit to reduce medical errors. All right, let's look at a scary number. In the United States, we estimate that a minimum of 10% of all deaths are related to or due to a medical error.

That's a lot. 2.8 million people leave this earth from the United States every year and so when you do that math, you end up with a quarter of a million of those being related to a medical error. When we think about why we do what we do, why we came into the fields we came into, which is with an orientation towards help and recovery and habilitation or rehabilitation, realizing the magnitude of adverse impact that happens on that very population that is our reason for existence to help them, is pretty brutal. Confronting that and facing that reality can be painful. So in 2016, John Hopkins did a study of the adverse impact of medical errors in the United States and identified that more than 250,000, that's a quarter million deaths, per year are related to or due to a medical error. Then that's where that 10% number comes from. So over the same years, the CDC studied and summarized other causes of death and in that same

period, in that same review period, just over 600,000 people died of heart disease, 580,000 died of cancer, 150,000 just died of chronic respiratory disease. So then if you do that hierarchy, and you slot that 250,000 number in there, medical error is the third leading cause of death in the United States. Okay, so what counts as a medical error and this is a fun ... This comes from Rodziewicz and Hipkiss's seminal work on medical error prevention, which gets updated every few years and it's where a lot of the information, a lot of the foundational language comes from when we're talking about medical errors. So, in their work they say the answer to this basic question has not been clearly established. Due to unclear definitions, medical errors are difficult to scientifically measure. A lack of standardized nomenclature and overlapping definitions of medical errors has hindered data analysis, synthesis and evaluation.

Well, that's great. So what we do know is that big, giant, painful number, 250,000 deaths each year related to medical errors, is almost certainly too low. In part because we don't even have concrete definition amongst different sectors in the healthcare continuum, about what constitutes a medical error and about how medical errors are classified. Interestingly, there is a section of the ICD-10 Inventory, specifically for adverse patient events. If you looked at the tables for patient morbidity and mortality, the Y category includes sections to record when an event has occurred that is a medical error impacting a patient.

This chapter, the sections in this chapter, are called patient misadventures, patient misadventure codes. Those are the Y codes in the ICD-10 tables. That's just such a benign-sounding name, patient misadventures. Like we meant to go to Pirates of the Caribbean and somehow ended up having the wrong surgery performed. It's sort of a benign term for what's a pretty high impact event, but what we do see is when when look at medical reporting data that use even of those codes is low, is low compared to what we do know from doing other research. So the impact of medical errors is almost certainly even higher than what we think it is and what we think it is is not, in any way,

a number that any of us would be happy with that's in the healthcare industry. So once you start adding these complications about varying terms and not a lot of agreement about what all the classes are, and we'll talk about some other issues that are a barrier to transparency and reporting, we know that we don't even have the full grasp of the picture of how big a problem this is. Okay, so going back to medical error prevention, we do categorize medical errors broadly one of two ways. The first is error of omission, which is an error that occurs as a result of an action not taken. So not doing something that was necessary or was ordered or that was compliant with medical standards of practice. Not doing that is an error of omission.

So an example, strapping a patient into a wheelchair. That was taken directly out of the piece and if you work on post-acute environments, we generally don't strap patients in wheelchairs anymore. But of course, there are places where safety devices should be used in medical transports on gurneys for instance, safety buckles and things like that. Not applying a safety measure that we should have. Not fastening a buckle, not lifting up a rail, not relaying a laboratory finding. So the nots, the thing we didn't do, causing patient error, that's an error of omission.

On the opposite side of that is an error of commission, which is an error that occurs as a result of the wrong action taken. So administering a medication to a patient that has an allergy, not labeling a laboratory specimen, which then later assigned to the wrong patient. So an error of commission can be doing everything from doing the wrong thing to doing it the wrong way to doing it to the wrong patient. So when we take an action and that action is not congruent with the intended outcome, that is an error of commission. Very broadly, errors, medical errors across the classification spectrum are identified one of these two ways. Okay, now we're gonna dive into a couple of the subtypes of errors. The first one is an active error and an active error is that type of error that occurs during the points of contact between a person and the healthcare system. If you start thinking about it and you start deconstructing it, the points of

contact, they are enormous, they are enormous. Everything from calling up a provider to engaging with admission staff to getting your name band put on to speaking with the radiologist about your lab results to handing off information between one provider and another. I mean, start breaking it down. Every single time and action is taken between a patient and the healthcare system is a point where an error can occur. If an error occurs in that place, in that intersection between the patient and the healthcare process in any way that is an active error. The patient is involved, the patient is impacted. On the other side of that we have latent errors. Latent errors are errors that occur as a result of a system or a process. So it's not necessarily the point of contact between the patient and the healthcare process per se, but all of those infrastructure things that make a healthcare system exist.

How we store and retrieve medical errors, our policies and procedures for recording or relaying information or providing health information. They can also exist through equipment and how we maintain equipment, how we calibrate equipment, how an organizational structure is designed for the way patient information or patient contact flows through a healthcare system. A latent error is one of things that are lurking. So eventually, it's gonna become an error, it's gonna become an active error because at some point the patient's going to access the healthcare system and the place where that latent error lives is going to become an active error.

But they exist at all their lurking in our healthcare processes and procedures and systems and equipment maintenance and food handling, those are latent errors and if you were gonna call them anything, you'd call them an accident waiting to happen. The irony is that we can often, as we go through our healthcare day, we see them, we see oh, that's an accident waiting to happen! Oh my stars, how many times have we thought that? But if we really want to make sure, one of routes of prevention, and we'll talk about this later, is being proactive when we see those and doing our best to advocate that the accident waiting to happen is instead, identified as an opportunity for

systems improvement so that a latent error lurking there in our equipment or our processes or our communication protocols never becomes an active error where a patient is actually involved. All right, more subtypes of errors. Okay, a medical error is most specifically, a failure to complete an intended treatment plan or implementing the wrong plan. So now we think about an order for a physician for a swallowing evaluation or a language assessment or a family education session and we don't get it or we get it and our case loads were so full that we filed it away in our brains and never came back to it or implementing the wrong plan for the wrong patient. So we write an order for a texture modification and it goes into the system for Mr. Smith instead of Mr. Smitts. So anytime a plan goes awry, we would identify that as a medical error.

On the other side of that is negligence. So that's failure to meet reasonable medical standards. That one is not that we did something wrong necessarily, but something occurred that required knowledge, expertise, awareness and those processes broke. That can occur at the individual clinician level. So for example, a pre-op nurse fails to assess vitals before a patient has a procedure. So it can be that a person does something that is not compliant with medical standards of practice.

Or it could be, on the other side, it could be an organizational issue and the most obvious one would be putting somebody insufficiently trained into an environment where they had to make decisions or enact processes beyond their scope, beyond their clinical scope or even just beyond the scope of their training. Putting people in oversight or accountability positions without the requisite experience or knowledge. In those cases, negligence is an organizational or a systems process, in addition to negligence being something that can occur at the individual clinician level. At this point, I want to just help us-- We're gonna be talking about the medical records somewhat, but one of the things that I do point out, especially when I'm training about documentation, is that we so often, we look at documentation as almost a necessary evil, a thing that we have to get through or in some environments, we look at it as the

thing that gets us paid. And not that any of those things aren't fundamentally true, but the other thing to remember is that the medical record is also the method by which we demonstrate compliance with reasonable medical standards. So when we have made a decision, the reason that we made the decision, we only really have one place to memorialize the why we landed where we landed and that is in the medical record. So especially in environments where your decision making impacts somebody in a high acuity, high risk circumstance, a recommendation to decannulate, advancing diet texture from thickened liquids to thin liquids, saying that the patient has the necessary cognitive capacity to understand, to participate in medical decision making. We'd want to be able to say the why, why did we think that.

One of the things that we coach with clinicians who, for reasons that are a mystery, develop amnesia the minute they leave grad school. for all of the vocabulary that they learned to describe their skills and knowledge. One of the easiest prompts when we're helping people identify the nature in which their services were skilled and specialized, that only a therapist can do them, is we say how did you know to do that? How did you know that it was okay to recommend decannulation? How did you know that it was safe to broadly upgrade the patient's diet?

And when we're thinking about medical errors, we're wanting to remember that one of the things that we want to be able to do is be able to prove, at any point in time, that we did use our best clinical judgment, that we did make our decision considering all of the available facts. The medical record is the place where we do that. So being able to describe the clinical presentation that led you to your decision making, why you decided to do the thing or advance the skill, that you spoke with the other professionals, that you educated the patient or their family, this is one of the ways in which we demonstrate that we have met reasonable medical standards. In an environment where all of us along the healthcare continuum, of course we live in a litigious society and we want to make sure that we have put enough information in

those records that should any of our decision making come under scrutiny later, that we do have the ability to say I made these decisions based on all of the right reasons, with all of the relevant information and I did meet reasonable medical standards. So do not forget that that's one of the jobs that your medical record does for you, especially when you're hurried and you're harried and the idea that you have to open up an electronic health record and type things is about the last straw. Okay, couple other things, a near miss, an event that could have created harm but did not. So there are a couple places that near misses are likely to get fortunately caught in that net. Sometimes it's just by chance.

Somebody catches something at the last minute, realizes that we've got name duplication, or that somebody noticing at the very last minute that the medication was expired or that the gauge doesn't seem to be working. But whatever the reason, by chance or by somebody noticing the problem in the last second before patient harm or adverse impact occurs, that's where the near miss is. Everybody's heart rate goes up and their blood pressure goes up and they realize that something bad could have just almost happened, but thank our lucky stars that it did not.

But the thing about near misses is that they are exceptional opportunities for investigation. Because, and we're gonna talk later about reluctance to report, we're a little less reluctant to report a near miss because the bad thing didn't actually happen. Then, but then we can reverse engineer and we can do the root cause analysis that is so important in these situations. 'Cause if we don't know and we don't learn and we don't improve systems, there's no way to reduce the actual number of these events. So taking the advantage of every, every single near miss. Why did this happen? Was it a systemic issue, was it an organization issue, was it a knowledge issue, was it a training issue, was it a communication breakdown? Figuring out why the thing happened, everybody is much more amenable to doing that when the patient harm was avoided. Always capitalize on those in the event that you are a part of one or

adjacent to one. Then the last thing down there is never events. Those are aptly, events that simply should never occur. It doesn't mean that they don't occur, tragically. It's just an error that is so severe and so egregious that any organization should be developing all of the systems and protocols to ensure that it doesn't happen. A couple of those things, of course the one that came to my mind immediately when I started thinking about them, was the wrong surgery site or the wrong surgery performed. Of course, these tend to be very media-worthy when they occur. The tragedy of somebody needing an amputation of the right leg and what happens is that there was an amputation of the left or they were supposed to have their gallbladder removed and their spleen was removed. So they're terrifying and horrible because of course, they are irreversible. But those are never events.

Some events related to care, the development of pressure ulcers. If you work in the post acute continuum, we know how to keep pressure ulcers from happening. We know what kind of monitoring systems. We know what kind of equipment systems. We know who are the highest risk patients. Once we know these things, pressure ulcers shouldn't occur. So those are considered never events. Then in the pediatric spectrum, a wrong infant discharged with parents.

Again, it's not that it doesn't occur. I think we're all very, very grateful that they're catastrophic events and they're rare, but we do know that they happen. But there is a classification of severity, where an error can be very minor. We don't want any error to occur at all, but they do ratchet up in scope and severity, all the way up into these never events, that we want to keep from happening ever at all. Okay, now the Joint Commission for the Accreditation of Hospital Organizations, defines a sentinel event as any unexpected occurrence involving death or serious physical or psychological injury or the risk thereof. So JCAHO of course, is our Accreditation Institute for acute care hospitals and the go back to considering that any point of contact in the healthcare continuum is a place where potential error can occur. The most dynamic environment

for that of course, is the inpatient hospital settling. So, it's a huge factor in quality programs and quality management in the acute environment. Not because they care more, I don't think, simply because again, it is the most dynamic of the healthcare environments in sheer numbers of patient contacts and back end patient management by way of labs and imaging and data recording and medical records and information exchange. So the other thing about a sentinel event of course, is that it should be the place where there should be the most resources developed and allocated to prevent them and in the event they occur of course, full court press in terms of analysis, assessment and remediation by way of investigation on discovery of cause through cause analysis and a corrective response.

Okay, so errors in office space settings, they again, they manifest a little bit differently. We don't have quite as many, just the sheer magnitude of interactions, in terms of points of contact with the healthcare system by way of contact with individuals, contact with back end processes, but they do still occur and the one that is most common in outpatient settings are diagnostic errors. So now, as SLPs we're thinking about that, about how often we are in outpatient settings and of course, about how often diagnosing is a component of what we do.

So the Institute of Medicine defines a diagnostic error as the failure to establish an accurate and timely explanation of the patient's health problems or communicating that explanation to the patient. So now we start thinking about again, all of the places where we do diagnosing. Swallowing ability, of course, is a huge one. Identifying that first assessment of patient's capacity for intake of foods and fluids. You know, you think about the working environment and you get that referral that the patient is NPO till speech, and of course that will show up on 4:30 on Friday and you know that some poor patient is either not gonna be able to eat and drink or they're gonna have to stay on their IV or their TPN over the weekend if you don't get in there and of course, no pressure. So another situation is our assessment of cognitive function, where the

decisions that we are making may be driving whether or not a physician says it's okay for a patient to maintain a driver's license or accept a certain job. So when we start thinking about the way SLPs contribute to the healthcare continuum for an individual by way of our diagnostic skills, and you start thinking about the ripple effect of how our decisions impact nutrition, communication, language, employment, recreation, and then back fill that with the fact that the most common type of error in an outpatient setting is likely to be a diagnostic error, it then becomes a lot easier for us to appreciate our impact to the overall maintenance of health and wellness and again, thinking about how to keep some of these errors from occurring.

One of the things that has been a component of the current medical emergency is classification, are rehab professionals essential healthcare workers. Which, I have to confess, to me was just a really, who on earth thinks that we should be asking this question? But apparently some people did. But if you think about again, let's just set the rehabilitation and improvement of patients that still need to be getting better coronavirus or no coronavirus, the impact that we have on a patient's intersection with the medical community just by way of something as simple as what can this patient eat or drink and does this patient understand what you're asking of them. The idea that SLPs or other rehabilitation professionals were not essential healthcare workers, seem to be a kind of a ridiculous assertion.

But just the fact that our ability to contribute adversely to problems related to the diagnosis of conditions and severity and the informing the patient of what that means. I'm going to add to that, other medical providers along the continuum, the impact of the way that we may contribute in an adverse way is pretty high. Okay, another thing that is a big deal, it's a big deal in all parts of the healthcare continuum, but it does take the highest percentage again, after diagnostic errors in the outpatient setting, adverse drug events and medication errors. In here, you can go back to the omission and commission duality because either of those things can occur. A patient cannot get

a medication that they are meant to have or they can get a medication that they're not meant to have or get the medication that they're meant to have but in the wrong dose or at the wrong time. It's basically any error that happens between the prescribing of the medication and the patient receiving the medication. Then another place where medical errors happen in office-based or outpatient settings is the communication flow of information. That of course, is any time poor communication contributes to an error or where poor communication or disrupted flow of communication causes a barrier or a delay in the delivery of preventative care. So people only know what they know by way of us telling them whether that's through an electronic health system, whether it's through handoff, whether through the community SLP connecting with the acute hospital SLP for the modified barium swallow.

But if you consider the flow of information that needs to happen to avoid errors, to avoid duplication, to properly and accurately execute that plan of care that we were talking about earlier, communication is integral. Any time something goes wrong because somebody didn't know something, fundamentally, you've had a communication error occur.

Okay, so we're gonna go move now and we're gonna talk about the cause of some of these things, now that we've all had to spend a half an hour immersed on how much and how many ways things can go wrong. Let's talk about some of those causal factors, 'cause one of the things that's essential in any problem solving situation is that you can't fix anything until you know what's happening and why it's happening. So let's talk a little bit about that. So JCAHO Sentinel Event Database in 2012 reported that communication errors were a factor in 59% of serious adverse events. So think back a slide, where we talked about the flow of information, think about your average older adult patient and just the sheer number of the points of service, in terms of the healthcare continuum, the acute hospital, the inpatient rehab facility, the skilled nursing facility, the home health agency, the outpatient clinic, their GP office. So I've got six

institutions already and each one of those institutions has potentially dozens of practitioners who may have engaged with that patient, dozens and dozens of medications, dozens and dozens of diagnostic elements and in every single one of those, information has to go from one place to another and so now when you just start adding up the magnitude of the information that has to get from point A to point Z and all points in between, that number doesn't seem, actually in any way unexpected. In the database of adverse patient events, 59 if them correlated to a communication error. The Doctor's Company, which is a national risk management malpractice prevention consulting company, went through and looked at malpractice claims and identified that in 27% of them a communication breakdown contributed to the finding of mismanagement resulting in a claim of a decision of malpractice. Between 2012 and 2016, over a quarter of malpractice claims had communication breakdown as part of their root cause.

Okay, the Mayo Clinic did a study and they looked at the top three contributors to medical errors and the first one illegible handwriting. I just needed, I'm just wondering if all of you are like me and are saying to people, I had such nice handwriting until I went into healthcare. Of course, that's just a function of when you are writing quickly and you are writing a lot. It has improved somewhat in the manifestation of the electronic health record. The thing that then happened there though, is that we moved into dictation software. When we moved into dictation software we traded off things that you couldn't read for things that the dictation software couldn't understand. We were reviewing a claim and trying to figure out why the interdisciplinary team had decided that the patient needed to stay on part A services for monitoring of their lab values. I'm sure this patient was adorable and I hope that they spread love and sunshine throughout the world. We weren't quite certain how that made them eligible for part A but then backing up a little bit in context, we realized that what was actually true was that the patient needed to stay on part A for monitoring of their lab values. Our organization that was using dictation software had not proofread the content. The

Mayo Clinic then also identified that non-standard abbreviations are a huge problem when it comes to the propagation of medical errors. What we think in our head is the most obvious way to abbreviate something, simply may not be the way any other human in the healthcare continuum identifies it. A situation where one of our PTs had written MHP in the physician's order, MHP, MHP. Mid hip pants? Multi human programming. Nobody had any idea. Went back to the PT and MHP was moist hot packs. So a little education there. By the way, MHP is not a standard abbreviation. I know it's hard, but please write out moist hot packs. Okay, now another thing that contributes to medical errors is cognitive bias.

So cognitive bias of course, is the way our brains trick us into thinking things that may not necessarily be true. It's a huge problem when it comes to medical errors because you think about how much of what we do, what physicians do, is interpreted. It is assessment and analysis and interpretation. Once you introduce cognitive bias into that process, you've opened up an entire universe worth of places where errors can be made. So a couple types of cognitive bias that the Mayo Clinic and other researchers have identified as being pretty heavily contributory, one of them is anchoring bias. Anchoring bias is where you assign a disproportionate importance to one piece of information.

Often it's the first piece of information that comes your way and so that thing you see takes up all of the cognitive processing space in your head and you skew towards that answer, regardless of whether or not it's valid or correct or even most likely, simply because it's taking up the most mental space in your process. Another type of cognitive bias that tends to manifest is wishful thinking. That's actually, that's not all that unexpected when we think about the fact that sometimes some of the things that people in the healthcare profession have to tell individuals is painful or difficult or frightening. So there is a cognitive bias away from information that could be painful. But we land on the wrong answer because we want it to be true, then we've

manifested in wishful thinking by way of cognitive bias. The next one's my personal favorite because it's the one that I suffer from most and that is confirmation bias, which is, we will look for the information that tends to validate the thing we think. We will come to a conclusion and then instead of looking at the information around us to determine whether or not our conclusion is accurate, we will cherry pick the information that's available to prove that our conclusion is accurate. Then the last, I love only just because it's just got such a great name, the availability heuristic. How many times do you get to say heuristic in everyday conversation? But that is when you have a tendency to overstate the likelihood of something being true simply because you can remember it.

So not all answers to all circumstances exist readily available in our internal card catalog for the things that we can put our mental fingers on quickly. But we again, are more likely to assign a decision for simply those things that we can remember. But doing that is that is the availability heuristic, that means the information was available to us when we reached into our brain to grab it and therefore, it must be true. But of course, that doesn't make anything true. But one of the things that has been--

Well just in general, one of the challenges is that when you look at cognitive bias in the medical environment, you'd think medical professionals, healthcare professionals were all well educated, we're all well trained, we had to go through rigorous courses of study to look what we do and if you just told us that we had cognitive bias, when we were diagnosing or developing treatment plans or making decisions about when to conclude an intervention, that as long as told us that cognitive bias was going to be part of our decision making, we could think our way around it and oh, you would be so wrong. There's no evidence that simply educating people that cognitive biases exist does anything meaningful by way of reducing the incidence of cognitive bias in medical decision making, which is unfortunate. I would like to think that just because I know that I suffer from these things, that I could work around them and maybe to a degree

that I do, but unfortunately, simply training people that it exists is not sufficient. One of the things that has been helpful in addressing cognitive bias, especially the availability heuristic, which is that you are more likely to land on the decision that you can remember, is inventories and checklists. If you can look through all of the available things, you are more likely to pick the thing you want than picking the thing that you remember. That includes everything from selecting treatment interventions or laboratory tests or diagnoses. When you can see, when you have full visibility into the full array of options, you are more likely to land on the correct one than simply land on the one that you remember most. Okay, so The Institute of Medicine also has looked at some of the things that are contributory to medical errors nationally. One of them is the fragmented health system.

So we talked about that a little bit a moment ago. If you just imagine your typical older adult that has a major medical event, they will go through as many as six providers between the event and getting back to community-based living and functioning. But that's true in other places. It's true for our pediatric populations, where you might have a school-based SLP and you might have a medical SLP. You may have an OT that comes in from specialty practice services.

It just doesn't matter how old we are or where along the spectrum we are needing to access services, we don't in this country, have a continuum of healthcare. It's complicated also by insurance plans, where you need to see specialist A, who is in network, but he wants to work with specialist B, who isn't in network and all of the sudden the exchange of information has become more complicated. It might even now be the burden of the patient. For those of you in the adult care practice, who may or may not live in the western part of the country, the Kaiser system is an interesting model, in that it is a closed system. It is an insurance benefit and it is a provider continuum all rolled up into one and whatever your relationship with the Kaiser program might be, one of the things that does tend to happen is that the flow of information

between access points of the healthcare system is good. The information does flow relatively well between specialty groups within the continuum. So it's a problem that doesn't have an immediate resolution because we're a large country with lots of healthcare use and lots of different systems and disconnect sometimes between accessing providers and having those services paid for through insurance. But the fact is is that as soon as you create space between one provider and another or one system and another, you've introduced the possibility that medical errors can occur. The next one is licensing and accreditation systems that do not emphasize error prevention. I have to admit that you know, I didn't go through, okay remembering back into the time when dinosaurs roamed the earth and I was in grad school.

But there wasn't a lot of discussion about my potential to adversely impact a patient. That all came sort of once I stepped into the healthcare environment and even then, we don't have a culture that really emphasizes error prevention. In the absence of a climate where that is an imperative and that is an objective, again in a situation where we're all working really hard and handling busy caseloads, it becomes really difficult to assign any importance to something if the institution within I work does not seem to assign importance to it themselves.

The next is a deny and defend liability system. This is a reality of the world that we live in. In the United States we are a pretty litigious culture. Liability protection insurance, medical malpractice insurance, is something that no provider would step into a healthcare setting without having. It does create a pretty adversarial context by way of wanting to disclose or wanting to be transparent. But bizarrely, it actually has a weird positive benefit. So Amy mentioned that I worked in the United Kingdom for a couple of years. I worked with some of the most exceptional healthcare providers I've ever met and yet I was startled often, by practices that coming from my United States healthcare system mentality, seemed weak and sometimes dangerous by way of food handling and records handling and safety procedures and I went into the intensive care

unit for the first time and asked for an orientation to the unit and they looked at me like I had two heads. But I think the reason for that has nothing to do with the providers, who as I said were just dedicated, passionate individuals. The UK didn't have the litigation that the United States had. Now that was back in 2001 and it's possible that it's changed now. But these amazing standards of patient handling and record handling and equipment management that I was used to from the US health service wasn't because we were any more special or awesome than our counterparts in the UK. But we work in a climate of knowing that somebody will sue us if we don't do those things. If something bad happens to a patient because of a faulty system or a weak process, we are often held accountable for that in pretty brutal ways. So bizarrely, that wasn't true in the UK and consequently, I think my lay person's analysis of the culture difference between the two environments, I actually do think that was a component.

Then the other thing that IOM said was that there is a lack of incentive from payers to address errors. But I actually think this is changing to a degree. Now, there are most major health plans actually, do have a sentinel event or never event consequence to their providers. But it's very punitive. It's that if you do bad things we will not pay you. You know, if you're a small practice, you don't typically operate with a lot of a buffer and that can be pretty brutal. But additionally, Medicare itself is moving to value-based purchasing models. What that means basically, is instead of pay to play it's pay to perform, where your reimbursement now starts to become tied to positive patient outcomes. Then there is also the adversarial component, the punitive component, which is and we will take money away for bad outcomes. So for example, the hospital readmission calculations, hospitals are penalized for patients that bounce back into their system in 30 days. Skilled nursing facilities are additionally penalized for patients that bounce back into the system within 30 days. That includes not just when they are... It includes, for a skilled nursing facility, it includes after the patient goes home for 30 days, same thing for the hospital. There was a period of time where those penalties

were limited to, if you treated let's say, congestive heart failure was one of the diagnoses and they came back for congestive heart failure within 30 days, you were penalized. But they've broadened that now and it's now all cause readmission, which is that if you had somebody, if you had your arms wrapped around somebody for clinical management and within a month that person reaccesses the acute healthcare system, somebody has not done their job properly. That we didn't do everything we needed to do. We looked too narrowly. We didn't insure enough follow up, et cetera. Now, there are some concerns about these models and the biggest one is that you don't want to penalize a provider for taking care of a sick person. The more comorbidities that exist within a patient, the more likely a patient is to have an adverse outcome or a complicated outcome.

But we don't want to, we don't want to disincentivize trying. We don't want to disincentivize admitting a patient into an environment just because we know that we're not sure we can help them. So of course, nobody in the healthcare continuum wants that to be the case. So when they are applying these penalties, they are trying to apply them to broad patient populations, per capita populations, because you wouldn't want a provider to decide on my behalf or your behalf or your mom's behalf, that they weren't going to engage or they weren't going to admit because the patient was so ill that a bad outcome could happen and we would never ever want to deny anybody healthcare services because it might make somebody's numbers look bad. So there are some caveats when we look at the incentives that do exist in the system and there are a lot of efforts to try to risk manage them. So if you do treat higher acuity patients, if you do treat more complicated high risk patients, that there's an understanding that the outcomes will not be as good, but to make sure that to the best of the system's ability it is incentivizing good care and good practices, which means any weak systems, vulnerable systems by way of introducing a medical error to a patient would ideally be identified and proactively resolved in order to insure the patient outcomes weren't adversely effected by the breaking of an internal system. All right, so the World

Health Organization of course weighs in. So they identified the following errors as potential places where medical errors can occur. The communication between healthcare practitioners and patients. It's one of those things where we tend to, as healthcare providers, especially once we've had any experience at all, it's all so clear in our heads. It's all so well-understood in our heads and we go back to factors of time, where the dynamic between the healthcare provider and the patient is typically suboptimal. Now, in an SLP situation where we may have the luxury of being able to be with a patient for a half and hour or 45 minutes, or maybe oh a whole hour, we may have those opportunities to really explore and educate, but for every therapist, every SLP who gets to do that, there's one who's trying to manage the floor of an acute hospital, where 20 patients need to have contact and those patients may or may be in a situation where they can comprehend what's happening around them.

So now in addition to trying to take care of the patients and make decisions about the patients, you're trying to educate the patient or if you can't educate the patient, please fingers crossed, let their wife answer the phone when I call them. In terms of the information that needs to be understood, it's everything from the diagnosis and the condition that you're trying to explain, to what the followup and ongoing treatment plan might be.

The greater the gap between the patient's ability to understand and the more components of the dynamic of the health event that need to be understood, the greater the potential is for a medical error. Team work issues, now this is everything from the fact that our healthcare system is fragmented and where, even in integrated decision, something like a diagnosis happens between multiple providers and multiple locations at different points in time, all the way through dysfunctional team dynamic. So healthcare providers that tend to work in silos, people who have an unhealthy feeling of possession or proprietaryness about their knowledge and expertise. So everything from the benign, just systems don't work through the dysfunctional people want to

seem like the experts and they don't want to be challenged kind of dysfunctional manifestation, all of those things fall under the heading of a place where a team work problem can result in an adverse patient outcome or a medical error. Laboratory and imaging services and now we think about again, the number of times that that may need to happen to an individual, especially one trying to get a complex diagnosis or dial in a relatively sophisticated treatment plan. Labs happen over there, imaging happens over there, you talk to two or three people at each location, who has spoken to a different person in the doctor's office to tell them what's going on and what we're looking for. So again, start adding up, think all the way down to the micro level and every single point of contact, from getting the patient's name right to the date of birth right to the diagnostic procedure right, to the ICD-10 coding right.

Communicating that from the person who does the intake, to the person who's going to do the lab or the imaging, to the person who's gonna key in that data so that labels and physician's order sheets print out properly. Making sure when the patient comes in to the center that you got the right person for the right process. Is there a consideration about whether or not the patient needed to be fasting? What position does the patient need to be in for this lab or this image to do its job?

So again, you start thinking about the sheer magnitude of the points of contact and points of decision making in labs and imaging services, now adding in communication problems, now adding in the fragmented healthcare system, you can see all of the places in that one sub component of the healthcare continuum where an error can manifest. Data management, I feel like I'm repeating myself so I won't. But again, just think back to the example with labs and imaging and all the places where one component of information needs to get from point A to point B. Now, take it into all of the other contexts, the diet, the metabolic constraints, the texture constraints. Who knows how many places, if I write the doctor's order is that enough, who's responsible for making sure that all the staff understands that this patient can't have thin liquids?

Where is the record coming from, upstream provider to downstream provider? Is there an electronic continuum? Spoiler alert, there probably isn't. So we go back to siloed healthcare records. What the upstream provider at the acute care knows is not necessarily information that's gonna make it into the inpatient rehab facility, let alone the home health company. So all of the information that needs to happen just for one specific diagnosis to be handled well has to go through countless points of contact and it needs to be accurate and timely and every single one of those, you can see now, where the medical errors can manifest. Patient transitions between healthcare providers. So we can think about that as an institution. Again, our older adult patient who goes to the acute, then goes to the ERF and then goes to the SNF and then goes down to home health.

So between the institutions, it can happen between the lab and the hospital, it can happen between the imaging center and the hospital or it can be between individuals. Shift transfer, medical errors or patient events falls, falls are most likely to occur during change of shift because the healthcare providers are busy trying to make sure that they have the stuff over there right.

They want to make sure they have all the information, which now means that nobody's eyeballs are on the patients. But whenever the patient transitions between a healthcare entity or between a healthcare professional, you've introduced the possibility of an adverse patient event. There is evidence that decreasing the number of handovers decreases patient errors. So in the last few years, a lot of inpatient settings have gone from three eights to two 12s, simply because you take one handoff. You take one handoff of patients out of the picture entirely and the fewer of those there are, the less points of information exchange there are, which means greater continuity and less likelihood of a patient error. Then chart patient record and completeness. Again, we need to think about the fact that we don't have very portable medical records. There is not one national uniform everybody types into this software platform so that the

information can follow the patient around. We do not have that. In rural settings, we still have a lot of record keeping done on paper. So now you have a situation first, just getting the information in there, somebody healthcare provider, somewhere was needed to write information down, they needed to write it in a way that it was thorough and complete and accurate and hopefully, legible and just get it in there. If we are in a situation where we're doing transcription and dictation, is somebody proofreading it to make sure that we're not keeping patients hospitalized because of their abnormal lab values. Then, how portable is that record? How likely is that information to go from provider A to provider B to provider C? So is it thorough, is it accurate, is it legible and is it portable? A question just popped up, I'm gonna take a look at it. Oh, a question about 30 day causal factors and readmit penalties. Holy smokes! I'm just reading the question, which is quite detailed. Marcia, I'm gonna keep that one for the end because I actually think that that one's gonna be an interesting one to talk about. So I see that your question's there and we'll circle back around to it. All right, okay, let's talk about some more risk areas.

Okay, so the America Society of Health System Pharmacists of course, is heavily invested in trying to make sure that things like medication errors don't occur as much as possible. So they are also pretty rigorous investigators when it comes to trying to figure out why bad things occur. They identified sort of their four biggest trigger points and a couple of them actually, have pretty broad applications. So the first is high risk populations and we will talk a little bit about this more. But a high risk population can be anything from a patient who is medically vulnerable because they have a high acuity disease or they have multiple comorbidities. Or it can be that population that is marginalized, that doesn't have access to the health system regularly, that doesn't come to healthcare with a lot of health literacy. So both of those populations are, and everything in between, basically once you start to introduce complications, be they medical or cultural or language, you've now got a high risk population. The other thing to consider is that are also high risk processes. A point of contact in the healthcare,

again have varying degrees of acuity, which means that an error has varying degrees of severity. So a patient getting-- I was gonna say a patient getting Tylenol and now the black box warnings on Tylenol for liver failure are enough to make me almost want to not take it. So maybe Tylenol's not the best example anymore. But there is a spectrum of acuity. So there are processes that carry a lot more risk. There are procedures that carry a lot more risk. Being able to consider where an intervention falls on the scale and scope of risk and acuity allows you to identify those places where an error is most likely to occur and if an error occurs how severe it is likely to be. There are of course, high alert medications.

Okay, I'm gonna say Tylenol. Tylenol down on the low end of the spectrum, black box warnings about liver failure or not, and then you have digitalis, let's say, on the high end. So there are medications that have varying degrees of when an error will happen. I mean, how big of a dose deviation before a critical medical event is going to occur? And there is again, a spectrum there. So when we're looking at management of patients, and we'll talk about this a little bit when we get to patients with dysphagia, considerations about medication and medication management are a component that intersects the SLP practice, when we're talking about how to prevent medical errors. Then that last one, easily confused drug names.

So look-alike, sound-alike medications. Digitalis and dilantin, for example, although both of those are very high risk medications. But there are a lot of medications that sound alike and then if you write them down, especially if you abbreviate them, now they look alike. We, as SLPs, are not the people that prescribe the medications, we're not the people that administer the medications, but we are often a lot of times, the people teaching things like medication management. So making sure that we are aware of the possibility of a drug error related to names, dosing and legibility means that we have an opportunity then, to protect the patient or the caregiver who will assume responsibility for these things once they're not in a healthcare environment.

Okay, so oh yes! This one, right now, okay so if you work in any kind of hospital or rehab facility or skilled nursing facility, you're looking at this one and your hair's turning gray and I'm sorry. But one of the big causal factors identified by nursing analysis is patients in isolation. Our entire healthcare population right now is in isolation. So this is worrying. But when you think about it, it actually, you can absolutely see how this would occur. So when we have a patient placed in clinical isolation, a medical error or adverse event is much more likely. The first thing is that they simply have less contact with healthcare providers. Physicians was the one that was listed in the study, but if you think about it, they have less contact with everybody. If you have to go into full transmission-based precautions and full PPE in order to walk into a room, you're not gonna walk into the room that often.

This wasn't even written when we were thinking about the catastrophic PPE shortages that are happening across the country right now. So simply the fact that it is not easy to pop into a room and check on the patient and see what how they're doing is problem number one. There's a higher incidence of incomplete or erroneous vitals. Then again, we have to think about what we are asking our line staff to do while they are gowned and gloved and masked and shielded and using blood pressure read out that's got plastic over it because we're trying to make sure that we can clean the product, the apparatus, at the point where we take it out of the room.

So you've created tremendous number of physical barriers to accurate vitals. Something as simple as blood pressure or getting heart rate or the fact that we are trying to get pulse oximetry through a glove, the manner in which we can introduce a physical barrier to something as simple as getting an accurate vital sign, at the point where we're barriered and the patient barriered, just goes through the roof. Then again, because we have less eyes on the patient, the patient is eight times more likely to experience a fall, a pressure ulcer, or a fluid or electrolyte imbalance. Again, this comes straight down to the fact that fewer people are walking in the room. When fewer people

are walking in the room, nobody's helping the patient who is ill drink. Nobody's offering water. We're not in there turning the patients as often or putting bolsters under them or making sure that they're moving side to side when they're not feeling very well and they're not at all mobile. And another factor that wasn't cited in this study was you put a mask over a healthcare provider and patient comprehension drops. Add a cognitive impairment, add a hearing loss, add a language impairment, add English as a second language, and as soon as you start removing the ability to see the mouth and the ability to see facial expression, patient comprehension declines. So right now, again, at this very sensitive moment in time in our healthcare system, one of the things that is likely to cause medical errors is a state where every healthcare provider is finding themselves right now when they're interacting with their patients. This is true across the continuum.

It may not be full clinical contact isolation and transmission-based precautions by way of keeping a patient isolated in their room, but everybody at the doctor's office, at the community doctor's office, you wear a mask, the patient wears a mask and then we're back to an elevated physical barrier between us and the patient themselves, that can disrupt our ability to get meaningful diagnostic information from that contact. So this is a particularly worrying one at this moment in time. Now, this is a big one, reluctance to report.

The American College of Physicians noted that clinicians who commit medical errors are shockingly reluctant to report them due to anxiety over disciplinary action, legal action or job loss. That's not an unfair worry, is it? Again, we live in kind of a punitive, litigious society. Add to that just the normal human nature that nobody likes to make mistakes and the idea that we might have made a mistake that might have hurt someone is pretty devastating. But we don't live in an environment where transparency is balanced with proportionate accountability. For example, I mentioned that there are the Y codes, the patient misadventure codes, the ICD-10 codes that you can assign to

a circumstance that specifically says that something went wrong. You didn't have a sterile field, you used contaminated equipment, you completed the procedure on the wrong anatomical site, so use of those codes gets mined. Then you end up on a website called for example, Top Hospitals by Misadventure Codes. It's something that providers live in fear of in the age of readily available information, which of course is that giant double edged sword, which is where a provider, if they try to be transparent and if they try to share all of the information, then finds themselves on a list that looks for all the world like the list of the top worst hospitals. When in all likelihood, it's far more likely to be true that it is simply the hospitals that are most honest about their reporting. But again, we have a culture, a very punitive culture. To a certain degree, you don't, not to a certain degree, but you don't want to let go of accountability.

We need to be responsible for our errors. We need to have ownership and accountability, otherwise there is no incentive to improve them or resolve them. But at the same time, you can only do that if you know that they've occurred. We have put ourselves in a climate where disclosing that they've occurred carries with it tremendous risk all the way down to the individual practitioner level, and that makes knowing what to look for and knowing what to fix a lot harder.

Okay, let's talk a little specifically about the electronic health record because it, as I said, we yay for not handwriting anymore. I swear that doctors make up squiggles for no other reason to give us all brain teasers on a daily basis. But with the use of the electronic record, are a number of its own challenges. You know, really ridiculous typing errors that you cannot figure out for the life of you what somebody meant to say, back to the abnormal love values when transcription software, when the output isn't overseen, but there are other problems that happen with the use of the electronic health record. Because there is no system that simply provides to you in 3D, color-coded representation all of the salient pieces of information about a give patient

at any point in time. We are very much dependent on the way things are organized, the way they're classified, the way they're organized, the way that we know to retrieve them and for all of the benefit that the electronic record has given us, there are some pretty specialized problems that came along with it that has created a place where medical errors can occur at the point of contact between the practitioner and the electronic health record itself. So we've got a couple examples here. A primary care provider couldn't access the patient's radiology studies at the time of the patient's visit. The paper results were filed without the physician ever seeing them and the patient had a delayed diagnosis of lung cancer. So if you become dependent on the information being in a certain place at a certain time and it's not there, we find ourselves in a place where now we can reverse engineer where it was or when I could get to it, where it might be if it's not where I expect it and then again, in a hurried and busy healthcare environment, then moving on.

A patient was unable to access the nursing ED triage note, which would have changed the management and the patient later died of a subarachnoid hemorrhage. This was an example that was, there was a comparable example in the Ebola outbreak, where a patient presented to a hospital ER with fever, with sweats. The nurse in the ED asked, "Have you traveled internationally?" The patient disclosed that yes they had. They had been in Africa. The nurse recorded that but the emergency room physician, who came along later, didn't see it. So, the information was there but when we're talking about the electronic record, in many cases, you will only know what you know to go get.

Electronic health records are trying to develop systems where critical information gets put in a location where it will be universally visible no matter who you are and no matter what part of the medical record that you are in. So if you've worked with any of the electronic health systems that are around in the country now, you often have dashboards, you have patient alerts so that you can be a speech pathologist, you can be a lab technician, you can be a hospice employee but if you're accessing that record, that critical red alert information is there visible no matter who you are. Somebody still

has to remember to put it there. Because in paper charts, for those of you who, like me, came over on the Mayflower and who you remember you had a couple sections of the paper chart that you would always flip to and look for the most current information. What did the doctor write last? What did the nurse write last? What did the PT write last? And that was physically very easy to do. In an electronic health record now, there's clicking in and out of different sections of the electronic record, which may be a barrier to you knowing something very essential about the patient.

Test results and evaluations were filed in multiple locations, contributing to the failure to note the overall decline of a patient's vital signs and lab tests and the patient later died of sepsis. So this gets into a circumstance of what goes where and what do you access? Will what you need to know be where you need to access it? Because again, we've let go of the it's really easy to flip through a couple sections of the chart and it's not at all easy, in many cases, to click through different sections of a health care record. If there's a section of the health care record that you don't know is there, you will never open it.

Where, you're not gonna overlook the tab in a physical record that says "labs". But if you don't know where in the electronic health record labs might be, if it's not easily identifiable, it is very overlook critical information. An obstetrician did not have EHR access and could not access a patient's clinic notes documenting abnormal fetal size and the clinician stated later, that he/she had never received training or a password. And now we come to access. Patient medical information is sensitive and we don't let people wander off and pull up a kiosk and just start typing things in and of course, that's completely appropriate but it does mean that providers with infrequent access to certain healthcare environments may not have the necessary expertise or access to the critical information. So in a situation where a provider, not knowing the circumstances of this one, but perhaps a borrowed clinician from another hospital site, because of a staffing shortage or a specialist coming in for a consultation, those are the kind of

people that are not gonna have ready access to the electronic health record, where, for the patient's very protection, we make getting access to those systems a process. It's not that that is not appropriate, it means that very few systems have prophylactic measures for rapid access for ancillary providers or intenerate or intermittent providers, who may not be routinely accessing a record and will find that they need a Saturday afternoon at five o'clock in the evening, access to records without a password. The patient developed amiodarone toxicity because the patient's history and medications were copied from a previous note that did not document that the patient was already on the medication. So now we're back to, this isn't a system error now, it's a human error, where if you transcribe from one to another and information is inadvertently omitted, you can't know what's not there.

So even the best, most reliable electronic health records are reliant on we, as providers, understanding our obligation in the medical environment to ensure that information is accurate and entered in places where it needs to be. Okay, now we're gonna move into a specialty population. So we're gonna talk about medical errors due to limited English proficiency and again, to the surprise of exactly no one, patients with limited English proficiency are more likely than English speaking patients to experience an adverse event.

Again, to the surprise of no one, and of course, this is the United States, where English is the principle language. But you could say limited primary language proficiency in any country in the world, will be an environment where a medical error is more likely to happen. But in addition to errors simply being more likely, according to JCAHO Sentinel Event database, when a patient who has limited English proficiency experiences a medical error, they are more likely to suffer harm and the event was more likely to be caused by a communication failure. Again, to the surprise of nobody. But the fact that harm is more common in limited English proficiency individuals is something to pay very close attention to. It's not simply that they are less likely to

understand the context of an error that's going to occur, it's going to be more likely to actually hurt them. So, when we are talking about errors with LEP patients, they were most commonly attributed to, use of family members or friends as interpreters. We have all been in this circumstance, where we are trying to deliver care to a person who does not speak English and the only person who speaks both their language and English is the niece and it's the only person we can get our hands on or perhaps a well-meaning environmental services person, who happens to speak the language. So you will find yourself in a circumstance where you have the patient and you have the patient's wife, who also does not speak English, and you have your helpful niece or the kind person from environmental services, trying to act as translator for you and you say to the translator, "Please tell Mrs. Wife that her husband can only have "liquids if they've been thickened."

And then what commences is a back and forth that goes on for minutes, becoming louder and more intense and you are sitting this watching this go back and forth like a tennis match until five minutes later, the niece or the helpful environmental services person turns to you and says, "She says that's fine." I don't know what happened there, but I'm sure she says, "That's fine," was not it.

So that kind of breakdown is going to happen every time family members or well-meaning people who do not have any experience or skills as translators are who we have to use in order to manage those communication exchanges. Another place where limited English proficiency individuals are adversely effected is when providers try to use their "get by" level of language proficiency. In a home health situation, I called up a very, very nice young woman whose baby I needed to come see and said to her, in my beautifully accented, but ridiculous Spanish, "Hi, I can't come today, can I come today?" Hey, why she let me in the house, I have no idea. But my limited English "get by" Spanish, which was not even functionally "get by", was only appropriate as far as trying to make an appointment about when I could come. I was not going to be in a

circumstance where I was helping her and her baby with a posterior cleft palate without the benefit of meaningful translating services. There was no way my grew up in California, I know a little bit of Spanish, was going to provide a meaningful way for me to get information to this mom, who was trying desperately to take care of her baby. Then another thing that tends to get in the way is poor health care provider understanding cultural considerations that will effect medical decision making, when it comes to patients and families with limited English proficiency. Because with limited English proficiency becomes a very, very different cultural background for engaging with other people. And that can include willingness or typically lack thereof, to express pain or state complaints. Stoicism is a cultural function of a lot of other, many Asian and Middle Eastern populations.

You don't complain, you don't tell people when you're not feeling well, you don't tell people when you're hurting. In that context, it makes it very, very difficult to properly diagnosis and deliver interventions. Gender roles are a big one in a lot of cultures, where the wife is perhaps the person who handles all of the little details or perhaps not the person who's allowed to make decisions. In a completely judgment or attribution of value environment I just need to understand, as a provider, that that is true.

So, the likelihood that comprehension or effective decision making will occur will be very, very contextually dependent on how gender roles orient people towards decision making or retention of information, based on the culture and language of the patient. Then another one is willingness to question authority. In many cultures, that is not a component. You don't disagree with the doctor. You don't disagree with the speech therapist. You don't disagree with the individual who is telling you something, which means that if you know that they've gone down the wrong road, you don't tell them. You don't advocate yourself. It is considered disrespectful. So when you have, as a subtext to an exchange with a patient coming from a different cultural background, in addition to the language barriers themselves, is the fact that the patient may be fully

aware that you don't quite understand what they're trying to tell you and they may not be able to speak up. Okay, let's talk a little bit explicitly about patients with dysphagia. And again, I'm gonna tell ya a big shocker here, which is that in studies we find that patients with dysphagia are more likely to be on the receiving end of a medication error. And I know, I am just blowing your mind with all of this unexpected information. But again, to the shock of nobody. Because we have basically taken normal away from a patient and again, just simply considering the pressure and capacity of the healthcare system. So a UK study in 2011, found that patients with dysphagia were much more likely to be on the receiving end of a medication error to the tune of 21.1% error rates with patients with dysphagia, when compared to 5.9% errors with patients without dysphagia. So that's concerning and the majority of those errors were things like crushing medications that could not be crushed or combining medications that could not be combined.

At the point where you introduce challenge to the simple act of delivering a medication, it is absolute human nature of a nurse to try to compress that process. I'm here, I've gotten you into the 90% position, I've thickened the liquids that you need to have in order to take the medications, so we're just gonna go for all of them. Even in circumstances potentially where those medications should not be combined.

This happened in an environment at a healthcare environment, where the nurses would have had the benefit of pharmacy alerts about when things couldn't be crushed or when things couldn't be combined. Even in that context, we found that we, as if I was part of this study, the researchers found that the nurses were more prone to making errors. So now take the patient out of the healthcare environment and put them in a situation where their well-meaning spouse or the neighbor who's trying to help them out is the one trying to make those decisions, who doesn't notice that it says on the bottle, "do not crush" and nobody's provided the alert that medication A or medication B should never be taken at the same time, but the neighbor's only gonna be there one

time that morning, so the neighbor's gonna help with all of the meds at the same time. Now, the other place to consider this is with our skilled nursing facility patients. So now we have a population where as much as 45% of patients have some degree of swallowing impairment. That's according to ASHA, in the skilled nursing environment the numbers for patients who have some degree of swallowing impairment in one phase or more is 45%. And 40% of those patients take nine or more medications. Now again, we are in a healthcare environment, where we should have the benefit of pharmacists giving us alerts about when things can be taken together or what can or can't be crushed.

But we know even in the best systems, once you start introducing more and more complexities, patients with swallowing problems may be needing altered presentations, multiple medications that will all have different rules about whether or not you can crush them or combine them. The more complexities you introduce into the system, the more likely it is that you are going to introduce an error. All right, now let's start talking about some root causes.

So, when we're talking about medical errors in general, so we've spent a lot of time now okay, what are they, how often do they happen, oh my stars that's terrifying. What sorts of things get introduced into systems that make them more likely? Okay, now moving into that, what are some of the additional root causes, where if we start exploring them, we can start maybe dialing in some solutions. Okay, so medical error prevention, this again, this is that seminal work by Rodziewicz and Hipskind, that gets updated every year or two, it's a fantastic research if you really want to dive deep into medical errors. But please do it in the daylight when you've got people around you because you are going just be fretting so badly after you read all this information. But one of the challenges is conducting healthcare in an automatic fashion. So that's the whole going on autopilot problem. Not thinking through, think about our cognitive biases. The availability heuristic, where you just pull the thing that you remembered first

into your problem solving and solutions. Not seeking advice from peers, misapplying expertise. I know a little bit about this thing, so I must know something about those things over there. Not formulating a plan or not considering the most obvious diagnosis. So that's the whole Occam's razor thing right, that's the if you hear a galloping it could be a zebra, but it's mostly likely a horse. But at the same time, we also know that there's a component of medical decision making where if you don't consider all of the options or if you don't have all the options available to consider, you will only consider the ones you remember.

So all of those things combined create an environment basically, if you look at all of those things, it's where thinking isn't really happening. The autopilot, the not bothering to take the time to get another opinion, thinking that you know more than you do, all of those come down to a failure of the fundamental analysis and cognitive process when it comes to landing on a diagnosis, landing on a treatment plan, landing on a solution. Communication issues, including having no insight into the hierarchy. Who do I go to? This is the problem, who do I ask?

Who's my authority? I don't understand this and if I don't know readily, who the person is who can help me fix it, I will move on. An absence of leadership, so somebody to help develop that hierarchy in the absence of one. Not knowing to whom to report a problem. Again, if I don't know where to go quickly and efficiently to report something, to update something, to let somebody know that something is broken, it's gonna slip out of my brain in just a few minutes, I will not go back to it. Failing to disclose the issues. So we've talked about reluctance to report. There are a lot of cultural components and systemic components that make us not so likely to go and tell somebody when we've messed up. When that is a component of the work environment that will contribute to medical errors. Or in this one, having a disjointed system with no problem solving ability. Ah, none of us have ever worked in that. We're just spinning in circles, we cannot land on a solution. Then that's, but it takes work. It takes work to

create a system where we're willing to talk about the problem, we're willing to identify the problem, we can meaningfully analyze and assess the problem, contextualize be transparent about the problem and then move to a solution. The spinning in circles phenomenon of course, is epidemic rife in the community. But when you find yourselves trapped in those environments, of course you just never get to solutions, so the medical errors never reduce. Deficiencies and education, training, orientation and experience. We come to our fields with a lot of education, but that only carries us so far once we're into a real world circumstance with real patients and real complex systems. You step into a new environment, somebody needs to make sure you know how to apply the rules and the policies and procedures.

That you know how to do it and you know how to do it in that specific environment. Then, being aware of where there is experience or where there is an experience deficit. Where we have an experience deficit, are we identifying mentor clinicians? SLPs are one of the few professions who recognizes that we are likely to be sole practitioners. And if we're likely to be sole practitioners, your first year out of school, you are an island.

So, I wish the APTA and AOTA did the same thing, by way of requiring that you have a professional mentor your first year in an environment. For SLPs again, it tends to be especially critical because we're often the sole practitioners in a health setting but we're experienced-- You can only have experience by getting it. So in an environment where experience is a factor, ensuring that when you are introducing a clinician, a low-experienced clinician into an environment, that they have a system by way they can access clinicians or guidance from those with more experience so that they can seek out support when they are trying to engage in problem solving outside of their scope of experience, to ensure that both their skills develop and patient harm does not occur. Okay, some more. Inadequate methods of identifying patients, incomplete assessment on admission, failing to obtain consent, and failing to provide education to

patients. So in this again, this comes from preventing medical errors, that big, giant very, very helpful piece. But when we look at inadequacies in our systems, how do we know who the patients are, how do we know what they have, who's doing the assessments and how complete are they? Again, thinking back, put that in the context of our healthcare system, which tends to work very rapidly and tends to work in a very pressured setting. Overlooking a critical, a salient clinical presentation is hugely contributory to medical errors. Failing to obtain consent. Now we go back to health literacy. Does the patient really understand what it is that you are asking them to agree to? Not only did you get it, but did the patient understand it? Failing to provide education to patients.

Patients are in healthcare settings at very, a microscopic time cumulatively, over their day to day existence. They're going to be in their homes or in their work settings needing to do what the thing is that we need for them to do and if they don't fully understand it, if we haven't educated them on the how and the why and the when, the treatment plan that we've developed is gonna disintegrate as soon as the patient is out the doors. Inadequate policies to guide healthcare workers. Again, we only know to do what we know how to do.

While we may roll our eyes at policies and procedures, the fact that we can have a uniform system for if I do this my way, it's gonna be the same way you do it because we're both referencing the same policy document, is going to ensure that between the way you do it and the way I do it, patient harm doesn't occur. Consistency in procedures, again, there's so much variability in the way practitioner A does it from the way practitioner B does it. Now, I'm gonna say look at the way practitioner A and practitioner B does it, do it? Look at the way they do it and determine which one yields the better outcome and then write the policies accordingly. But you really don't want to have deviation because another thing is that then, in the event of an adverse patient outcome, is it the policy that broke down or is it the manner in which the practitioner

implemented the process that broke down? It is difficult to do if you don't know that you have consistency between the services. Inadequate staffing and poor supervision of course. You can't make good decisions, you can't provide good care if you are caring for more patients than a human has capacity for. Technical failures associated with medical equipment, making sure that people know how to use the equipment, making sure that the equipment is properly maintained and then calibrated on whatever schedule the manufacturer recommends. A lack of audits and oversight is another problem within the system. So we can do the things, the things can maybe go wrong, but it's easy to not comply with the system when you don't feel like anyone is looking at you.

So everything from documentation audits, to ensure that we are demonstrating our compliance with reasonable medical standards in our records, to shadowing and supervised and observed treatments, medication administration, procedures once we're moving up over into the more acute aspects of the healthcare continuum. But in the absence of oversight, there is no accountability by which to ensure that people get better. Then the very, very human one at the bottom, that no one's prepared to accept blame or willing to do all of the work that needs to be done in order to change the system.

Okay, so the impact on patients, we talked about that big, giant scary number at the beginning, 250,000 deaths per year are due to a medical error. Let's dig a little deeper. 12 million adults are misdiagnosed every year. That means statistically, almost all of us at one point or another in our encounters with a healthcare provider have had a misdiagnosis. That can include coming up with the wrong diagnosis or failing to identify a diagnosis that exists. Just in terms of cost, if we just want to think about what it costs, 20 billion dollars related to medical errors every year, including a cost associated with remediating or correcting the adverse event, as well as litigation and settlement monies. Healthcare is 18% of the U.S. gross domestic product. A big chunk

of the country's economy is in healthcare and 20 billion of that is spent in managing the impact of medical errors. Okay, the International Health Institute did a survey in 2017, and found that 73% of the patients who experienced harmful events reported that there was some type of long-term impact. Psychological impact, a patient that had an adverse event developed anxiety, they were angry, they would feel a sense of abandonment that again, thinking about this culture we have where accountability is very difficult, they did not feel like they were supported or properly taken care of by the health system after that occurred. The social and behavioral impact, this one interestingly, goes both directions. There's a positive benefit, bizarrely, to an medical error occurring to a patient and that is that an a patient, on a visual level, might decide to be a better advocate for themselves. So that's great, but that's not always what happens.

The other side is that is that patients will then avoid seeking access to healthcare if they've been harmed by a medical event in the past. The prolonged physical impact, this can be everything from pain to a lack of symptom relief, to needing to give up a type of work or type of recreational activity because the physical limitations as a result of the medical error. Then of course, the financial impact, and that's just not dealing with the costs associated with ongoing health access to remediate the problem, but also it's possible that whatever the medical error was has contributed to the patient's inability to work or work at their previous capacity.

So there can also be income loss. But let's talk about the clinicians. While it is right and proper to consider the patients that are harmed by adverse events, there also needs to be some recognition that no healthcare provider ever purposefully commits a medical error. So in that case, we need to think about the fact that the practitioner who may have performed or commit that error, they themselves, are going to be harmed by committing a medical error. That creates the second victim. So, the Quality for Safety and Healthcare Journal published an article in 2009 and defined the second victim as

healthcare providers who are involved in an unanticipated adverse patient event in a medical error and or patient-related injury and become victimized in the sense that the provider is traumatized by the event. Frequently, these individuals feel personally responsible for the patient outcome. Many feel as though they have failed the patient and they start second guessing their clinical skills and knowledge base. There's been a fair amount of research on the second victim when it comes to medical errors and the second victim being the person who commit the error. Just think about all of us and why we came into the field and our inclination, our propensity towards healing and recovery and the whole fact that most healthcare practitioners go into the field because they want to make people better and the catastrophic impact that it can have on a clinician when they do something that causes harm.

So the second victim study researched what the stages were when an individual has commit a medical error. They identified these six. So chaos and accident response and so that's the event being realized, telling somebody and getting help, stabilizing and treating the patient, but in some cases, they may not be able to do that if the event was serious. The patient is then taken out of that individual's care, which can be catastrophic for somebody whose first response is to try to help. Then there is an entire wave of emotion that comes along with that. Then we have this internal questioning of how did this happen, why did this happen? It's a very, it can happen very quickly. It can happen very dramatically.

There can be a lot of attention, a lot of high emotion, a lot of high of anger and in the initial phases, a lot of blame. The second is the intrusive reflections. So, now starting to cope with the reality that we have commit a medical error. We start playing it over again in our heads, over and over and over. If only I had, if only I'd known, if only... We may isolate. It's difficult to be around others, others in our profession, others in the healthcare continuum when we're in this mental state. We start developing internal feelings of inadequacy that I've commit harm, I've done harm. And the what did I miss,

could I have prevented this, and as I mentioned, the if-onlys. The stage three, we're trying to move into restoring some personal integrity. We're trying to engage some acceptance amongst our work group, amongst our peers, with our social structure, sharing the event, seeking, trying to seek reassurance. There maybe some information management that needs to happen, of course, you know there's gossip spreads like wildfire and whenever we know something so and so did such and such, we know that information, the telephone line may be engaging and there may be a process by way of trying to mitigate gossip or repair misinformation streams. But then we start thinking things like, what will my peers think of me, will anybody trust me again, how much trouble am I in? We may suffer from an inability to concentrate or inability to focus. Then the next step is enduring the inquisition.

So now we have to talk about it. We have to describe the circumstances, what did we know, what did we do, did we follow practices, did we follow procedures, did we deviate from them? There's disclosure to the family that needs to happen typically in these scenarios or the patients themselves. Now we're left in sort of spinning in circles, where what am I supposed to document, how much of this do I write down? If I write down the wrong thing am I admitting blame? What do I say? Uncertainty just about processes, what happens next?

I've told my supervisor what's happening, am I gonna get suspended, am I gonna lose my job, am I gonna lose my license? A lot of, moving into a state of complete uncertainty. Stage five, obtaining emotional first aid. That's again, seeking out support by way of our professional networks, our professional peers, possibly even something as structured as a support group, because these events can be very major. But with this, comes analysis about why did I respond this way, did I respond proportionally, did I deflect blame where I should have responsibility, did I take responsibility where I didn't really have very much, am I gonna stabilize, is my thought process disordered, am I going crazy? But a lot of internal self talk. Trying to come out of that uncertainty,

but often in a context of not having a lot of answers. Then there's moving on. We say moving on and it sounds so positive. Oh, we're moving on! But moving on, it's not always positive in these scenarios because sometimes what happens is a professional dropping out. A catastrophic response, where I can't do this. I can't be trusted, I shouldn't do this. I can't live through this again. I can't live with making a mistake like this again, where a professional can actually exit the profession, because they can't move, they don't feel like they can transition back into being an effective practitioner. Sometimes it's as simple as just surviving. Moving on is I'm back to work, I'm doing my job, but I'm doing it in a context of less confidence. I'm getting by, I'm going day to day, but I don't feel good about myself, I don't feel good about the process.

But then of course, what we hope for is the most positive, which is moving into an environment of improvement, of accepting responsibility, of being accountable, of moving into improvement, of being able to gain insight, gain perspective, perhaps being able to teach others. The University of Missouri Health Care in 2011 did a survey of their residents and their medical practice at the hospital and one in seven said they had experienced an adverse safety event that caused an adverse personal response, including anxiety, depression, or failure in clinical confidence.

And 68 of those clinicians reported that they did not get institutional support, which is pretty heartbreaking. I want you to take a second, think back and remember the first time you messed up! And I remember mine, it was a patient who was diabetic and I gave them regular pudding. And I hope, I hope that you were in an environment where you felt safe disclosing it, that you were able to transition through responsibility and accountability and move into improvement, but unfortunately, the research shows that if we do that, there's a good chance that we did it alone, that we didn't have institutional systems that were set up to help us. Okay, let's talk about some prevention strategies. So the National Patient Safety Foundation developed one. It's called "Ask Me 3". This is a patient self-advocacy tool. So what is my main problem, what do I

need to do and why is it important for me to do this? So this is pretty distilled, right. But again, we're talking about a patient population that may have just a tremendous variety in healthcare literacy, so we don't want it to be too terribly complicated. But they found that these three questions, that the patients were comfortable in confident in the answers to these three question, what is my main problem, what do I need to do, and why is it important that their comprehension of the medical interaction that they were having and their ability to comply with it, went up significantly and the likelihood of an error went down. If you work in a healthcare environment, you may be using the SBAR system. So what the SBAR system is designed to do, it's designed to try to make sure that enough essential information goes back and forth between providers.

So in a skilled nursing for example, they use the SBAR, which is when you are initiating outreach for a physician for a change of condition or medical event, you are prepared to describe the situation, what's happening with the patient, the background, what other diagnoses are present, what medications might be relevant, the assessment, what objective information about this patient can you present and what your recommendations are, knowing the environment that the patient is in, potentially better than the provider that you're reaching out to.

That once you have all of this information available and synthesized and ready to relay, efficiently and accurately, to the medical provider, the likelihood of a medical error goes down because the medical provider isn't missing a critical piece of information, like I have diabetes in the presence of liver disease, where those two things combined are gonna change the direction of a potential treatment plan, also ensuring that you don't end up with a recommendation that you can't execute in the environment that you're in. So the more contextual information a provider has in order to make a medical decision about a patient, the more accurate the decision is likely to be by way of coming up with the diagnosis, coming up with the treatment plan, or deciding on a higher acuity intervention. The American College of Physicians recommends

embedding patient's safety goals into daily activity. So, are you functioning in a culture where the fact that the patients are well in healthy and safety and without adverse event, is something that you are measuring and tracking. Developing an accurate, confidential, non-punitive system for reporting both events and near-misses. Again, remember we're a little bit more likely to disclose the near-miss because the bad thing didn't happen. But we have to be in a situation where we're willing to disclose when the events themselves occur because if we don't know them we cannot fix them. So ensuring that you're in an environment where accountability and responsibility are expected but they are also administered proportionally, will ensure that the practitioners that make the error are willing to come forward. Then, adopting liability protections that protect healthcare providers for being penalized for reporting errors. So remember, we talked about job loss, we talked about law suits. So developing institutional structures where providers are protected, in some cases going even so far as to developing regulatory environments, where there is some protection for the practitioner to ensure that when the patient error occurs, it is disclosed.

In order to help patients that have limited English proficiency, there are a couple of specialized strategies that exist. The first is making sure they understand the heightened risks that exists for them at all. You can't treat patients with limited English proficiency the same way that we can patients who are fluent. We have to approach the interaction itself, knowing that the risk dial went up a couple notches because I may not understand them, they may not understand me and as soon as we have a communication breakdown, errors are likely to happen. We need to talk about education regarding the need for qualified interpreters. Remember that ping pong game that happened about whether or not the patient was gonna be able to go home on thickened liquids. We can't put the burden of medical communication on lay people, on family members and friends or the very nice environmental services gentleman who's trying to help us, because we don't speak Farsi. Then we need structured communication tools. So a lot of hospitals have adopted some very standardized

translation boards for key words. Now again, thinking about as soon as you start losing complexity in communication, you start losing the ability to inform in any detail, but at least being able to understand when patients are telling us that they have pain, being able to identify their preexisting medical conditions, and preexisting medications. Any of these structured tools are going to make a huge difference when it comes to ensuring that an LEP individual accessing the healthcare system is going to get their needs met with the least likelihood of an error, remembering that this population's more likely to suffer harm. All right, let's talk about us. So I want you to think back over this scintillating hour and 50 minutes we have spent together so far and think about the number of times the word communication came up when we were talking about these problems.

The ACP communication and flow of information errors, the World Health Organization, communication between patients and healthcare providers is one of the weakest points where an error can occur. Also from the WHO, communication problems contributing to 59% of the medical errors. The Doctor's Company, 27% of medical malpractice claims involving a communication breakdown. Then, from that big giant article, seminal article, communication errors are a fundamental root cause of medical errors. Then, ah, think about what we do.

So we just happen to be people who are experts in communication. And I don't know if it's nature or nurture, I don't know if we went into the field because communication resonated with us so much or because of how we were trained we became experts in it, nature or nurture it is in our wheelhouse. So when you start thinking about systemic improvements, institutional improvements, organizational improvements, when you're talking about communication structures, I want us to have a seat at the table. So, from a patient standpoint, we are the ones who assess and treat receptive and expressive communication. Now, think about the parallels between limited English proficiency patients and patients who have impairments in receptive or expressive language. They

are not the same. I do still have to educate people that no, speaking Spanish is not an impairment. However, when it comes to the barriers between the patient, the source and the communication source sender and receiver, there are parallels between those patients and patients who have aphasia or other language problems. So understanding things like how to determine if somebody is understanding you, how to facilitate output that the individual can tell is accurate. These are things that we know how to do because we know how to do it with patients who have the impairments. Treating impairments and speech intelligibility. So again, we go to comprehensibility. We know how to do this. We know how to gauge whether or not intelligibility has occurred, by which by extension, is then if comprehension is occurring.

So applying those skills, both to the patient populations that have impairments, because now we have to assume that if LEP patients suffer medical errors at a higher rate, then our communication impaired patients suffer medical errors at a higher rate. Assessing and treating impairments and cognition. I cannot tell you, and I'm sure you have all experienced the same, trying to explain that just because the patient can tell you how well they are feeling and what a nice day it is, does not mean that they understand you when you tell them how to administer their injectable insulin. Then we are the folks that understand how to develop adaptive and compensatory communication systems.

We know how to get to the root of do I understand you, can you understand me. Even when the most complex system we can develop is not very complex when it comes to the nuance of health and wellness and treatment, at the very least we know that we have the necessary skills to ensure that on its most fundamental level, information exchange has accurately occurred. All right, and specifically for patients with dysphagia, this is a big one because think back to those studies. 22% error rate almost, compared to only 6% with patients that don't have dysphagia. Now we are in, okay, we just, we are running up and down hallways. I know we have all done this. So

first, do our institutions understand the differences in textures and complying with them? Do they understand that it is not a suggestion? Do they understand is everybody fluent with the language? Is everybody fluid in the terminology? We've just come out with the international classification of dysphagia textures, yay! Except now we're all out there educating all over again. But hopefully, this will decrease the disconnect between what the hospital calls a texture and what the ERF calls a texture and what the SNF calls a texture. Do we have robust communication systems for care staff to know when a patient is on an altered textured diet? Do we know that people know how to access the information?

Are we being told that we have to hide the diet recommendations behind a door in a closet because it's potentially sensitive? Are we assessing the systems and how well they work? Again, we go back to auditing. The best system doesn't, the glossiest, most beautiful system doesn't work if nobody's going back later and making sure that the system is resulting in compliance. You want me to post it this way so the CNAs know that they should be given thickened liquids. Okay, I'm gonna sneak around some corners and see if the CNAs know how to access that information because if they don't, the system doesn't work yet.

Then risk assessment, any time that we're doing hybrid textures or environmental specific diet liberalizations, I am a huge fan of the free water protocol. But of course, we all know that the free water protocol, as soon as you tell somebody that the patient can have water in this circumstance, what they really want to do is over generalize it to all the circumstances and that is seldom true. So making sure that we understand that whenever we introduce something that's non-standard, like you can have mechanically soft diet, but you will have pureed meats. We want to liberalize the diet as much as possible but now we have a hybrid texture. As soon as you introduce things that are not consistent, you've introduced an opportunity for error. So you need to make sure that when you're aware of the risk that gets introduced as soon as something is not

consistent and standardized. We do want to ensure that our patients and our caregivers fully understand texture management, swallowing procedures, compensatory techniques, adaptive techniques, once they are outside of the healthcare environment. Reverse demonstration, as much as you can do. We don't always have the luxury of doing this. We find out that the patient left yesterday. Okay then. Now we're gonna try to chase down the downstream provider so that they don't have to reinvent the wheel. But to the best of our ability, ensuring that our patients and their caregivers understand the strategies, understand textures, understand how to manage altered texture in a community environment, which is not the easiest thing to do necessarily. Then, developing a system where everybody knows how to handle the meds. Where are the alerts for what can and can't be crushed? Where are the alerts for what can and can't be given together?

Can we identify medication alternatives? I cannot tell you how often it happens that nobody even thought to ask. Yeah, we can't crush this med, we have to give it whole. They can't swallow whole meds. Well, I can't crush it, we have to give it whole. Did anybody think to ask if the medication was available in a liquid? So making sure that we have a dynamic relationship with our pharmacists and our consultants so that the best solutions are available to us so we don't end up placing a patient in inadvertent harm because we didn't even know that a more effective alternative was available. Then lastly, our role in organizational improvements. Now we go back to we are communication experts. So we can contribute so meaningfully to any system, any institution, any organization that wants to get better. Again, think about how many times communication problem was a component in the medical error. So we want to identify the trigger points where communication disruptions are occurring. We are good at that. We are good at figuring out where it broke between point A and point Z. We are very good at assessing bidirectional comprehension. We know that sender doing a good job is not sufficient. We need receiver to do a good job. We need there to be a feedback system so that the information gets validated between sender and receiver.

We have a really good ability to assess health literacy because we are good at assessing comprehension. So when we're talking about high risk populations, or marginalized populations, or those individuals that because they speak a second language, are not necessarily going to understand the mountain of information that we have to give to them. We are good people at figuring out how to simplify and how to streamline. We're good at multimodal communication practices, not just verbal but in writing. Not just writing but also in pictures. So that when we're taking complex information and we're trying to make sure it goes from sender to receiver, we are good at multimodal communication development and our ability to help with that, making sure that the messages are consistent between the modes of communication and again, ensuring that it goes from sender to receiver intact and accurately understood, is right in our wheelhouse. Then lastly, understanding we are good at understanding cultural plurality and how it impacts communication. The cultural sensitivities about things as simple as gender roles or whether or not questioning an authority as a component of a cultural dynamic. Again, helping people understand speaking other languages is not actually an impairment. But applying those skills, our understanding of language proficiency, our understanding of language and coding and decoding, in a way that we can contextualize that and make sure that the information that we want to give is received well and received accurately. All right, oh my gosh, I'm 12 seconds over! Amy, what will we do with me?

- [Amy] Wow, very well done! You finished right on time, actually. Let's go ahead and address some of the questions if you are ready to do so. If you'd like to go ahead and just read them out loud so that everybody can hear them and then just answer them verbally, that would be great.

- [Lorelei] Sure, and I am totally fine to hang out for a few minutes to answer questions. I know that not everybody has that luxury, but I will stick around. Okay, so regarding causal factors and 30 day readmission penalties. We have a patient who has had 14

bedside swallow evals. This was the one that I started to read and just went holy smokes! And six video swallow studies over 12 months. He has remained unchanged, has a vocal fold paralysis but insists on eating regular, thin liquid diet, post discharge. Speech manager now precludes follow up when he comes in. Why should the facility be penalized for non-compliance? Ideally, the provider shouldn't, but I'm gonna toss out that it's, it's not always quite as clear cut and obvious as this one is. At the point where you've done 14, holy cow that's dedication, 14 bedside swallows and six MVSSs. At that point, you could certainly say that non-compliance is an issue, but we also know that non-compliance can be a little bit of a buzzword. Broadly, broadly speaking, not all health practitioners, broadly speaking we do tend to use the words pretty quickly. Non-compliance is not a term that should be used when we're asking patients to trade one problem for another. Non-compliance is not a term that should be used when we haven't identified possible alternatives and it's certainly not a term that should be used when we haven't sufficiently described, memorialized or educated on the risk. Now, I'm gonna say in the situation you're describing, you have in fact done all of those things. But one of the reasons that the term non-compliance has become a little bit sensitive is that we want to make sure that we don't gloss over our obligation in that dynamic. We also want to make sure that we're sensitive to the fact that sometimes we're asking something very difficult. There's a difference between somebody not being willing to do something because it compromises them or it causes them pain or not being willing to do it because I don't want to give up sugar versus I don't want to do chemotherapy because I can't live with how I feel. So there's a continuum also of what drives a patient response. In terms of an individual provider being penalized for readmission, for example because this patient that you're describing, if we're telling you have a paralyzed vocal fold, you cannot eat entering safely, there's no way it can happen, we've tried everything. And the patient goes home and the patient eats and drinks and the patient comes back to you a month later because they have aspiration pneumonia. So in that case, the way that those factors are mitigated are by the fact that we do look at populations, not individuals. But yes,

it's a real thing. We have no way to code a patient and say we've tried and we've tried and we've tried and this patient won't do what we're telling them to do and it's not our fault that the patient keeps coming back from aspiration pneumonia. So while it is true that there's a certain point at which the provider can no longer be held culpable, because they done everything that they have done, the way that they try to equalize that is again, by looking at large populations rather than individuals. You don't get penalized because Mrs. Smith came back with aspiration pneumonia. You get penalized if more than X percent of your patients in your provider area come back to you. That's the same way that they try to mitigate the risk against deciding, potentially improperly incentivizing, withholding care from complicated patients, is that you're not gonna get penalized on the fact that Mrs. Jones might not have a good outcome because in addition to congestive heart failure, Mrs. Jones also has cancer.

Mrs. Jones is one patient in a health population and we know that some of those readmissions are unavoidable. So they do try to look at large populations and they do try to create thresholds that will capture the occasional non-compliant patient or the occasional patient that no matter what you do you can't get them better. But keep those thresholds at a level where, if you had weak processes, if you had insufficient quality of care, you'd be exceeding a threshold that whatever oversight entity is involved would consider improper.

Can you provide any expertise about malpractice insurance and do you recommend having it? Yes I do. So, whether or not you have it as an individual, depends on where on the environment in which you are working. If you work for an institution, if you are an employee of an institution, you generally have liability protection through that institution. Things become a little bit different if you are a contractor. So I do recommend in any circumstance where you are engaged in providing healthcare, that you ensure that you have a liability protection, whether it's through the institution or whether or not you are buying it personally. I have had both at different times in my

career. Typically, I'm a provider with an institution and I am covered by the organization's liability insurance. There have also been times where I have been an independent contractor in a medical environment and I bought it myself. We are fortunate, we are very fortunate as SLPs in that we are relatively low impact on the healthcare continuum, in terms of the impact of an error that we can make. I'm relieved to say that the patient that I gave regular pudding to did not experience an adverse event, although I didn't sleep that night. Being a young clinician and things all feel very large. But liability protection insurance for SLPs is relatively affordable in the grand scheme of things. The last time I purchased it personally, was a few years ago and it was a couple hundred dollars a year. So it is readily available to us. I would recommend it. That's a completely personal recommendation. Any time you are providing patient care where you're not covered by your institute or your organization's liability protection. All right. I think I saw them.

- [Amy] So it looks, yes. I think you did, yes. I'm looking as well. I believe you did answer all of the questions. So, I think we can go ahead and wrap it up there. Thank you so much Lori, for joining us. It's always such a pleasure to have you here and learn from you. You do such an amazing job explaining these concepts. We really appreciate your time. We appreciate all of our participants joining us today and we look forward to seeing everyone again soon. Take care everybody.

- [Lorelei] Thank you all everybody so much.