

Fixing Healthcare Podcast Transcript

Interview with Lisa Sanders

- Jeremy Corr: Hello and welcome to the Fixing Healthcare podcast. I'm one of your hosts, Jeremy Corr. I also host the popular New Books in Medicine podcast, and CEO of Executive Podcast Solutions. With me is Dr. Robert Pearl. For 18 years, Robert was the CEO of the Permanente Group, the nation's largest physician group. He is currently a Forbes contributor, a professor at both the Stanford University School of Medicine and Business and author of the bestselling book *Mistreated: Why We Think We're Getting Good Health Care and Why We're Usually Wrong*. His next book, *Uncaring: How the Culture of Medicine Kills Doctors & Patients* will be published in May. Together, we host the biweekly podcast, *Coronavirus: The Truth*.
- Robert Pearl: Hello, everyone, and welcome to the fifth episode of season five. This season is focused on the culture of medicine, and how it both supports doctors and nurses in providing superb medical care in the most difficult of circumstances, such as during the current coronavirus pandemic, but also how it leads them to inflict harm on themselves and their patients. If you want more information on the culture of healthcare, you can find links to articles and other podcasts on the subject on my website RobertPearlMD.com.
- Jeremy Corr: Our guest today is Dr. Lisa Sanders. Dr. Sanders is an associate professor of internal medicine at the Yale School of Medicine, and a New York Times columnist. Her writing was the inspiration for the incredibly successful television series *House*, for which she served as a medical consultant. Based on her New York Times column *Diagnosis*, Netflix in 2019 aired a fascinating miniseries titled the same in which Dr. Sanders unraveled complex and elusive medical diagnoses.
- Robert Pearl: Hi Lisa, and welcome to Fixing Healthcare.
- Lisa Sanders: Thank you so much, Robbie, for inviting me. What great stuff you're doing here.
- Robert Pearl: Even though this is the first time we've talked, I feel like I've known you for years. I've been a longtime fan of your New York Times column. I've watched all eight seasons of *House*, of which you're the medical guru, and I love the diagnostic dilemmas you created. Most recently, I enjoyed your show *Diagnosis* on Netflix, wrote about it my Forbes column. For all these reasons, I'm thrilled you're with us today. This is our fifth season, and it focuses on the culture of medicine and the impact it has on both physicians and patients.
- Robert Pearl: By culture, we mean the values, beliefs and norms that we learned in our training and carry with us throughout our careers. I'd like to ask you about many of them today. Let me begin by asking you about the Netflix show. Can you tell the listeners the premise of the show and the process you followed in helping patients figure out their elusive diagnosis?

Lisa Sanders: Sure. Well, this was an outgrowth of a column that I did in the New York Times a few years ago called Think Like A Doctor, where in the show, we found patients who were undiagnosed, still in search of a diagnosis, and presented their case to the New York Times reading audience, and asked people to write in what they thought might be going on. We reached out to many of those people. We crowd sourced these patients with an unknown illness. We crowd sourced their diagnosis. Then I would help them go through the possibilities that were sent us about their case, and try to help them think about it in a reasonable way.

Lisa Sanders: They would talk to some of the people who wrote in, and based on that, we would try to help them find their way towards a diagnosis. We were successful in most cases, but in two cases, one patient remained undiagnosed. I think that's not terrible. He was a very complicated patient.

Robert Pearl: I think the results you had were amazing, because every case you started with was one that was a diagnostic enigma. I'm very interested in the approach you took, the crowdsourcing. You didn't just crowdsourced doctors. You brought in patients. You brought in people from a variety of disciplines, people from around the globe. The culture of medicine elevates the individual physician to the top of the healthcare hierarchy, and it celebrates that one person's intuition and personal experience, and your show diagnosis confronted that value system from my viewpoint, bringing in all these different opinions. How was it received inside the medical profession, and which culture do you believe will dominate the future?

Lisa Sanders: Well, my friends are all very nice to me. They all thought it was a fabulous idea. I don't know what they said when they were watching it. I mean, I have problems with the idea of crowdsourcing. I mean, in a way, it worked beautifully, but it was going after one thing with the huge resources of two different media. I mean, we went after these illnesses with the New York Times. That's millions of people who read the New York Times. Then we disseminated it through Netflix, another millions and millions of people. It's not a true test of whether this would work, because, of course, you're never going to get that kind of access, but I think it did show several things about diagnosis that are true.

Lisa Sanders: That is the doctors are not the only ones who know. Lots of times, we got the correct answer, or the answer that was at least as reasonable as any other answer from people who were what I call real people, people who are not doctors, but people who have knowledge through other means. They might be patients. They might be related to a patient. They might be pharmacists or physical therapists. I mean, people come in contact with people who are sick in a lot of different ways. We know from the very earliest research on diagnosis that the person most likely to make a difficult diagnosis is the person who's seen it before.

Lisa Sanders: We're just expanding the base of who we show it to, to expand the base of people who have seen it before. That was my thought, anyway. I think that it

showed some flaws in our healthcare system that, I think, we all can see and appreciate.

Robert Pearl: Do you want to expand on that a little bit, please?

Lisa Sanders: Sure. The very first show was about a young woman who had episodes of terrible muscle pains, and at the same time that she had these terrible episodes of muscle pain, her urine would turn black, the color of Coca-Cola. Well, you don't have to be so smart to Google those two things together, and come up with a very short list of possibilities. Yet, she'd been suffering with this for over a decade, and that's because she accessed the medical system through the emergency room because she had no insurance. Her parents had no insurance. She had no insurance.

Lisa Sanders: The emergency room, their job is to keep you from dying. Their job is not to figure out the underlying, in her case, a genetic defect that brought your illness. She came to the hospital with something that could have killed her, rhabdomyolysis, the breakdown of her muscles. That's why her urine was black. The people in the hospital addressed that problem, and then said to her, "You should go discuss this with your primary care doctor," but of course, she didn't have a primary care doctor. That's the problem with our system, that it's easier to get medical assistance through the emergency room than through your own doctor.

Lisa Sanders: That's one, I think, important problem that we showed is just access to medicine.

Robert Pearl: I agree completely, and my first book, *Mistreated*, was about the systematic problems that exist, the insurance problems, the access issues that patients often face. But in focusing on the culture, you might think that the people working in the emergency department would recognize this and figure out a solution to be able to bridge that link back into primary care, or they would in some ways recognize the failures of the system and make the change happen, and yet doctors seem relatively powerless. Is this a cultural issue or simply a systemic issue?

Lisa Sanders: I think it's both. It's literally not their job to do this. What is our job? Our job is what we get paid for. They don't get paid to do this. God knows, they have a lot to do. They have a lot on their plate. This just isn't one of them. This isn't one of the things, so we have a system that tells you that this is not important. How do we know it's not important? It ain't paid for. We get the culture that our system has trained us into. I'm not interested in that, but this is exactly what...

Lisa Sanders: I can't remember the name of the doctor who said this, but he's a really smart doctor who said, "If we don't fix the system, it's all going to be angels who do stuff that isn't paid for because they think it's interesting, or they think it's the

right thing to do, and everybody else, and that's not really a good way to treat people." I think that's right.

Robert Pearl: I'm very interested in the gap between what we as physicians tell ourselves, and what I see us often doing along these lines. We tell ourselves that we save a life at any cost, and what we did during the COVID pandemic was remarkable, with doctors and nurses taking care of patients, despite not having the protective gear that they need. At the same time, the COVID experience showed us how poorly we do when it comes to managing chronic diseases with almost 90% of the people who died having two of them, and often not in good control. How do we rebalance medicine so that we care as much about taking care of chronic disease and prevention and avoidance of complications as we do when the patient comes in with an emergency?

Lisa Sanders: Our system, as you know... I mean, you know the answer to this. Our system is set up to deal with emergencies at any cost. It's not set up to take care of chronic diseases. You know how I know it's not set up to take care of chronic diseases? People have to pay a fortune to get insulin. That's insane. This is something that was invented 100 years ago or discovered 100 years ago. That patent was sold to a pharmaceutical company for \$1, and yet, my patients, if they happen to not have insurance, will end up paying \$700 a month. Well, of course, they don't end up paying \$700 a month, because who could afford that?

Lisa Sanders: I couldn't afford that. I'm a doctor, and I couldn't afford that, so our system doesn't care about chronic diseases. I don't know why it doesn't care, but somehow the way it's set up, it doesn't care, and we allow patients with chronic diseases to go uncared for, until they're sick enough to end up in the hospital. Look at patients with kidney failure. In the '60s, it was decided in the act of incredible generosity that we should pay for people who need dialysis. That's fantastic. We don't have a law that says we will pay for people who have high blood pressure and diabetes, which is of course, why most people end up on dialysis.

Lisa Sanders: Many of the people who end up on dialysis, that is the first time their chronic diseases are actually cared for in any systematic way. That's nuts, but that's our system.

Robert Pearl: We'd go to the other end of the spectrum, and ask you whether the mantra to save a life at any cost makes sense in a world where we can now keep people alive, who will never walk, speak, eat or control their bowels or bladder. Sometimes, there's treatments. Sometimes, there's torture. How do you see this? You're the frontline. You're in the emergency department. You're seeing the patients come in. What should we do about end-of-life care from a cultural and a systemic perspective?

Lisa Sanders: Let me just take issue with your premise, saving a life at any cost. We don't do that. We don't really even value that. We say that, but we don't really do that. Exactly what we've been talking about shows that we're not saving lives

because most people die of chronic diseases. Most people do not die from gunshot wounds or car accidents. I'm sorry that anybody does from those, but that's what people are talking about, or some crazy cancer. It's not how most people die. Most people die in this country because of heart attacks.

Lisa Sanders: Why do they get those heart attacks? Because they have untreated high blood pressure. They have untreated diabetes. They don't have basic care, so we don't really want to save a life at any cost.

Robert Pearl: Let me ask you about a related one. We tell ourselves that we treat every patient the same, and yet we know that during the COVID period early on when there were not diagnostic testing, physicians over tested white patients compared to Black patients, the same happens when we look at pain medication being prescribed. We under treat people who are Black patients coming out of the same operations. You can go on and on and on. How do you see this cultural divide with what we tell ourselves in that arena against what we do in practice? How can we best address it?

Lisa Sanders: God, I don't know. I mean, I have to say I think of myself as somebody who does things fairly. But if I don't force myself to wonder where the bias that we all know exists, creeps into my work, then I'm not doing my job. I mean, I don't know how we fix that, but we have to acknowledge that it happens even to nice doctors, even to well-meaning doctors like me. I can't tell you what it is. I can't tell you what I've done. Certainly, if I could have identified it as racist behavior, I wouldn't have done it in the first place, but we don't see ourselves, and there's nobody looking at us.

Lisa Sanders: We could do a quality incentive, where our quality initiative, where we would look at how our Black patients are doing with their hemoglobin A1Cs, their control of diabetes or their high blood pressure, and compare it to our white patients or our Asian patients or our Spanish patients, we don't. We don't.

Robert Pearl: When you and I were training, internal medicine was the pinnacle of residency choices. Now, it's far down the list below nearly all of the specialties. What can we do to change that value hierarchy inside the practice of medicine?

Lisa Sanders: Well, of course, that is what I told myself. I told my first editor, when I started writing my column in 2002, "I don't think that internal medicine was considered the pinnacle of medicine even then." I heard what people said. Internist, they called us fleas, because we're the last to leave a dying dog. I mean, thinking has never been valued as much as doing, never, not since I've been a doctor, and I suspect not since you've been a doctor. I don't think we were ever at that pinnacle. When I started my column in 2002, I thought, "If I could just convince one person to see how very cool it is to figure this stuff out, then I'll be happy."

Lisa Sanders: Of course, I wasn't happy. I mean, I'm still trying to convert everybody all the time, but I think that it's not as dramatic, and so people think it's not as

interesting. I mean, that's why I loved House, because he wasn't about... I mean, of course, he was about doing because that's what television is about. You can't show thinking, but as a character, he came as close to thinking on camera as anybody ever has. It really showed that internal medicine has this built-in mystery story, a diagnosis that keeps me getting up every day excited about work, and I think would keep other people excited about getting up and going to work.

Robert Pearl: Like you, I'm very excited by the show, because I think House was emblematic of the culture of medicine. We tell ourselves we always put the patient first. We, in actual practice, often don't. We can come back to some issues around surprise medical billing, if we want soon, but he did. He was willing to go to prison if it would help a patient. Can we balance that I'll call it deviant behavior that House demonstrates with the practice of medicine today?

Lisa Sanders: I hate to sound like a one-note person, but it comes down to money. As long as we pay an invasive cardiologist, interventional cardiologist five to 10 times more than we pay internists, even though I think it can clearly be shown that internists, general internists, save more lives than those interventional cardiologists, it doesn't matter. None of that matters. It's the drama, and it's the politics, of course, but when we really value putting the patient first, we will pay people based on what actually helps the patient the most.

Jeremy Corr: I've heard of a lot of people suffering from rare conditions and or frustrated with American medicine, that they turn to Eastern medicine or alternative medicine, what most professionals would probably view is not backed by science. Sometimes, however, people swear up and down that these worked for them when all else has failed. What are your thoughts on this?

Lisa Sanders: Great. Whatever works. I mean, that works for you. Fantastic. How can any of us dispute that if you feel better with this? If it doesn't really address the problem, then the problem will come back, but if it fixes you, I don't know what's the downside to that.

Jeremy Corr: In House, for example, House MD, the show, we see the brilliant doctor who can think outside the box on every level, but has terrible people skills. Then we see on the other end of the spectrum, you see that 1950's sitcom Family Doctor, who's friends with everybody in the community, and even with what we see when most of us visit the doctor, we see a doctor who's sitting in front of a computer burdened down by that EHR process, but they have unlimited resources behind that computer in terms of what they can look up versus what that 1950's sitcom, Ask Family Doctor, can do.

Jeremy Corr: Now, where do you think that right balance is in what patients can expect from their doctors? Also, do patients have a right to expect the best of both worlds, someone who is super friendly and warm and knows about their family and cares about them, and also has those same resources and critical thinking ability?

Lisa Sanders: Why would those be a contrast? It's not like we're suggesting that they should have two arms instead of four arms. We're saying that they should have both a right arm and a left arm like everybody else. I mean, there's not a choice between choosing technical expertise and choosing somebody you like. That's just not a real choice. Culture is... Media has made it that way, but that's not a real choice. House is a damaged human being. I have to say when I was first recruited... When they first reached out to me and said that they were making a show out of my column, I said, "Well, tell me how that's going to work. I mean, what's the show about?"

Lisa Sanders: One of the executive producers said, "Well, it's about an irritable, arrogant and drug addicted doctor who hates patients and loves diagnosis." I didn't say this, because I'm not an idiot. But in my mind, I thought, "Who would watch such a show, Jesus?" But then they sent me the pilot, and Hugh Laurie was fantastic, because even though he is such a jerk, somehow, and this is the genius of Hugh Laurie, you felt like inside you could see that there was a caring individual, and that's the person that you responded to.

Lisa Sanders: I think Hugh Laurie is a genius. I mean, so it was the humanity in him that made people trust him, I think, or that's my interpretation. That's why the show was successful is because they thought even though he was a jerk, you could tell he cared very deeply about the patient and their disease.

Robert Pearl: Let me ask you about another cultural area. Over half of medical students today are women. How has that impacted the culture of medicine when it comes specifically to sexism and the practice of medicine? I'll say across your career, how do you see it now, and what do you think needs to happen for the future?

Lisa Sanders: Well, I came from an extremely sexist business before going to medical school. I mean, before I was in medical school, I worked for CBS News, where if you blinked an eye when a cameraman called you hon, or a correspondent patted you on the butt, you were just in big trouble. You weren't going to get anywhere. Very early in my professional life, I learned to just turn an eye and focus on what I needed to get done, because these jerks, you can't fix them. Most people are not jerks. Most people don't do this, but it happens often enough, so it's like a steady drumbeat. Well, it tells you a lot of things about what being a woman means to other people.

Lisa Sanders: When I went to medicine, it was the same. You had people calling you hon. You had people patting you on the butt. You had people swinging their arm around you as if you were their girlfriend. I mean, it's crazy, and that's just the way it is. I think the only thing that has changed any of it is people say, "Hey, you can't do that to me." Of course, medical students and residents and attendings who do that, who object to how they're being treated, some often pay for it in one way or another. When most people who go to medical school are women, you're going to get pushback, and you should, and you should.

Lisa Sanders: I think that more than that, having women in medicine has made important changes in the culture. Some of them are changes that make the men in medicine sad. I went to the grand rounds of someone who I respect tremendously, a close friend and one of my mentors. In his grand rounds, he said, "We are never going to have doctors like Osler." He named a few other fancy doctors. He said, "And you know why? Because those doctors were only able to focus completely on medicine because they had wives, and that's never going to be the case anymore."

Lisa Sanders: He was sad. He was sad. I think that the culture of medicine has made that kind of talk less likely. I mean, I tell residents and medical students when they asked me about this, I said, "You can't change the old guys. They're never going to change. But the young ones, you gotta cut them off at the knees."

Robert Pearl: Part of why I wrote my next book called *Uncaring* that we published in May was because what I see is what you just described, how slowly this culture is changing when it is so clearly wrong, whether we're talking about sexism, whether we're talking about racism, whether we're talking about the care we provide to patients, and the becoming unaffordability of the things that we do. You're a journalist. How can we change people's views more quickly to make medicine a 21st century type of endeavor?

Lisa Sanders: Well, of course, culture by its nature changes pretty slowly, because it's *sub rosa*. It's not something that people embrace. The version of the Hippocratic oath that you took and that I took is different at every institution. It ain't law, right? It doesn't really reflect the real culture that exists here, that is so much more subtle and more amorphous than those little oaths that we all recite when we get our MDs. I think that the younger generations of women and men coming into medicine, pointing out the ways this culture doesn't see them or sees them and thinks badly of them, or sees their patients and thinks badly of their patients.

Lisa Sanders: I mean, all we can do is try to work on our little plot of ground, because that's how culture changes. There might be other ways. I mean, it used to be that it took 14 years for something to be disseminated and to work its way into practice, and that was based on looking at how aspirin at the time of an MI when that started to become used regularly and took 14 years for this lifesaving therapy to get integrated into everyday practice. I see that or I think that there are other things that have moved more quickly, so it's possible that this kind of culture will also change more quickly.

Lisa Sanders: We have a very vocal generation. I must say that the residents and medical students I see more recently have been much more willing to speak up and say, "That's not right," and so maybe it's this generation or these new generations that are going to fix it faster. I don't know. Culture is hard.

Robert Pearl: What do you predict is going to happen? I concur with you completely about this upcoming generation of medical students and residents. What's going to

happen when they confront the systemic pressure, downward pressure, problems of the insurance system, the hospital system, the drug industry, we go across the entire range of challenges they're going to face? What do you believe is going to happen to them?

Lisa Sanders: Well, I hope that they will change the system. I mean, Medicare for all was the basis of my two children's vote. They were only interested in candidates that promised Medicaid for all or Medicare for all, and so we had to... I had a long conversation about... They weren't going to vote for Biden, or they were thinking about not voting for Biden, but he came closest. Not voting for Biden, I made the argument would be voting for the other guy. I mean, I tried to teach them about how politics changes what you can say, but I think that they will be a force to change this system. This system is not written in stone any more than the culture is.

Lisa Sanders: It's only a reflection of the culture, and so I think that it's changeable. They'll change it. They'll try. Maybe they won't in one sweeping motion change everything, but there are actually some changes already. I mean, there's changes in the pay scale, which I think are one thing. There's changes in... I mean, I think that changes are coming in, and we'll see. The pharmaceutical companies are making themselves into such monsters, that they're easy to criticize. People who charge \$700 a month for Lantus, that's easy to take down, because it didn't used to be that expensive.

Lisa Sanders: It's not like it got more expensive. It's just that people see a way of making money. I think that the targets are there. The energy is there. I'm willing to help. I think that we just have to try and change it, and I think that they'll be frustrated.

Robert Pearl: Medicare for all to me is a great example where every physician I know believes that medical coverage, insurance coverage, is a right that all Americans should have. But when you start talking about what Medicare for all will pay, and you start to tell physicians that they're going to pay current Medicare rates, they become irate that that's not a livable wage for them in the style that they want to have their lives. Again, to me, this is going to be this cultural clash between the values they have and what may be an economic reality. My concern, because one area that I think is just really problematical has recently been addressed by Congress, is the surprise billing with a patient.

Robert Pearl: It's put in the middle, almost the way nations put civilians into military targets, expecting the enemy is not going to attack, but when they do, there are very, very negative consequences. Thoughts on how this generation is going to face this systemic reality and the problems that it creates for them, and how that's going to impact their values?

Lisa Sanders: Well, this all has to do with the rollback of regulations. Other countries don't have this problem, even countries where insurance is the way things work. Why don't they have it? Because there are rules and regulations about what

insurance companies can and can't do. There used to be rules and regulations about this here and it was pulled off one at a time. I mean, I think it should just be banned. I think all of this surprise billing should just be banned. Period. I had to go in for a procedure not long ago, and at every step of the way, I said, "Can you assure me that everyone here who will be involved in my care takes my insurance, because I'm not going to pay any surprise bills?"

Lisa Sanders: It's ridiculous that somebody who's sick has to do that, and yet, that's where we are. That's where we are because we have stopped thinking that rules are helpful. Rules are helpful. I think that's something that can be fixed easily. A lot of the problems caused by insurance companies can be fixed easily. There's a lack of will to do it in Congress, because they are the source of much money, but I think that that's one of the ways we can change what you call culture, but I think is just the slippery slope of a lack of regulation.

Robert Pearl: Lisa, you're a world-class journalists and a world-class physician. That's a great opportunity to do both. But if you had to choose only one, which would you pick?

Lisa Sanders: No, I couldn't pick.

Lisa Sanders: I left journalism to become a doctor, because journalism alone wasn't enough. When I got to medicine, first of all, I felt like telling these stories that I see was an important thing to me. I could no more choose between them than I could do anything else. I mean, I love being a doctor, and I hope to be a doctor until I'm too dotty to make the right choices. I hope I will recognize that, and quit when I'm still ahead. I have no intention of leaving this thing that gives so much meaning and joy to me.

Robert Pearl: When college students ask you about becoming a physician, what do you tell them?

Lisa Sanders: I say it's the best. It's the best. I didn't go to medical school, obviously, to make a lot of money. I say, obviously, because not only am I an internist, which is I believe still third from the bottom of income scales with only pediatricians and endocrinologists below us. I'm a general internist, and I'm an academic general internist. Not only do I not make much money compared to everybody else, I make even less money by working through a university, but it doesn't matter to me. That's not why I did it.

Lisa Sanders: If I wanted to make a lot more money, I would have stayed in television. I think that when it comes down to it, people want to do the jobs that give them joy. I think that we need to encourage people to do that.

Robert Pearl: The traditional view of diagnosis, the physical exam, the history, the interpersonal interaction is sometimes seen as being out a step, Luddite-like, out of step with modern technology. Do you see a conflict between these two,

the Luddites of medicine versus the technophiles, or is there a synergy, a marriage of the two?

Lisa Sanders: Of course, there's a marriage of the two, I think we are just coming out of a huge infatuation with technology, where we just thought technology was going to show us everything. It was going to answer all of our problems. I've been doing this for 20 years, and it's clear that that is not the case. It's clear that the physical exam is important. It's clear that the history is the most important thing of all, and that relationship is also important. I think that like everything, it's a pendulum. It was all history and physical before we had anything else, and it was all technology.

Lisa Sanders: Now, I think we're coming closer to a middle ground where we understand what the limitations of the physical exam are. I mean, what happened with the physical exam? When I was taught the physical exam, they were like, "This is the way you diagnose this." Nobody talked about likelihood ratios or a way to think about the precision of a single exam or group of exams to give you an answer, and so when you find out that what you heard, that subtle murmur that you heard, wasn't seen on echo, and therefore can't possibly be true, you think, "Oh, the physical exam is stupid. It doesn't tell you anything."

Lisa Sanders: I think that that's part of the learning curve. Now, we're learning what technology can't tell us. I can't tell you how many patients who I see, people who have a hard time getting a diagnosis, who have been shot in the face with a diagnostic shotgun. That's how I see it. They'll say in their emails, "I've been tested for everything." Well, you haven't been tested for anything until somebody thoughtfully decides this seems likely. If you do, this drove me crazy when House did it, but he did it all the time. He said, "Test him for all the viruses." Well, that's the stupidest sentence maybe ever uttered by a doctor ever.

Lisa Sanders: Why? Because you can't. Besides, you shouldn't. You should think about it. You should think about the tests you order. The story that I have in the New York Times Magazine this week, it's about a guy who was diagnosed with Creutzfeldt-Jakob disease based on physical exam findings and the test, but he didn't have Creutzfeldt-Jakob disease, because the physical exam finding was misinterpreted, and the test was misinterpreted. He had something that was much more easily treated. I mean, there's no treatment for Creutzfeldt-Jakob disease.

Lisa Sanders: It's a death sentence. But instead, he had a limbic encephalopathy, which was autoimmune in nature. He had this brain problem that can be fixed with prednisone. That is so much better than having mad cow disease, where you die. Everything has to be used correctly.

Robert Pearl: What's your interpretation of how the diagnosis failed I'll assume in the care, at least, he initially received?

Lisa Sanders: Well, it wasn't for lack of trying. I mean, I think that good doctors are not 100% period. I mean, good doctors aren't 100%. I wish that we were 100%, but even good machines are not 100%. Even the best AI is not 100%. If you read the report from the National Institutes of Medicine on diagnosis, they say it's an iterative process, and that's right. You get some data. You think about it. You make a proposed diagnosis. Maybe you treat it. That doesn't work, you come back to it. It's an iterative process, and it's always going to be that until we have that piece of AI that they featured in Star Trek, where Bones would just hold this wand, this magic wand over the patient, and would know what was going on inside the patient.

Lisa Sanders: Until we have that, it's going to be a process, an iterative process where we try to figure it out. That's what I think is cool. I look forward to the day when we know the answer, and it doesn't take any thinking. But until then, I'm going to have a good time trying to figure these things out.

Robert Pearl: I wouldn't worry about it because I can't see it happening for a long, long time, because AI can only be as good as the data that goes into it, and the electronic medical records that we have right now, so much of the data is inaccurate, some of which is inexact. We use a series of different words for the same problem. I'm not worried at all about AI replacing the diagnostic abilities. I think it will replace the visual images, the reading of X-rays, the diagnosis of dermatological lesions, where you can take 10,000 mammograms, 5,000 that produced cancer and 5000 that didn't, and then have the algorithm read those where you have 100% certainty about what happened five years later, but I'm not worried at all about the diagnosis being replaced by AI.

Robert Pearl: I've been interested, for many years, in the question of whether intuition versus I'll call it evidence based or algorithmic approaches is better. I've read 80 different studies and different literatures, and every time the evidence based approach proves more successful. In medicine, we as physicians believe that our intuition is better than whatever the rules are. We read the rules, but ultimately, we want to be the deciding factor. When we take 1,000 patients, we treat half of them one way, and half with a more algorithmic approach. The algorithmic patients end up doing better.

Robert Pearl: How are we going to resolve this, again, cultural issue of physicians valuing variation rather than consistency?

Lisa Sanders: I would say that we should give every medical student \$100, and send them into a casino to play blackjack. Blackjack, the card game works, because there are some counterintuitive things that happen often enough so that the house always wins. Not all the time, obviously, but most of the time as it turns out. To me, that is the best example of how intuition leads us wrong. Did you ever read, Thinking Fast and Slow?

Robert Pearl: Absolutely, one of my favorite books. Absolutely.

Lisa Sanders: It talks about whether statistics can be understood to the extent that you could have a statistical intuition. He did a whole bunch of studies about this, and the answer is, "No. No, you can't." There are some things where your intuition is just not going to work, so we just have to accept that. I mean, we don't let people drive based on intuition. We teach them. We have these laws and these rules, and we make people take lessons. We have them do tests to prove that they can master this because we know that letting people drive by intuition is a bad idea. There are lots of ways we accept that intuition is not the right way to go.

Lisa Sanders: Why should medicine be any different? I mean, this is a leftover from when we really didn't know anything. I still have friends who don't believe in evidence-based medicine these days, because they say, "I have eyes. I can see." You can't reason with these people. Some of them are my best friends. I have some very good friends who don't believe in evidence-based medicine. They say they believe in evidence-based medicine, and yet, when some piece of evidence disagrees with what their own experience tells them... When that happens to me, I think, "Oh, maybe my experience is wrong. Let me look at the study, and see if it's a good study."

Lisa Sanders: They say, "Oh, that's a stupid study. Obviously, it was done wrong." Their bias is for their own intuition. I totally get that, but that is over, or should be.

Robert Pearl: When you are consulting for House, how did you react when, as you said, the idea of "test every virus" made no medical sense, and may have even been a bit more problematic for you in the sense of it being bad medicine, and obviously the screenwriters wanting to put that into the show? How did it feel, and what did you do about it?

Lisa Sanders: Look, if they wanted to make a medical show, they wouldn't have hired actors. They would have just gotten a bunch of doctors to sit around and scratch their chins and rub their beards. That was not what this was about. This was about exploring an idea that I explored in my column, and seeing if we could show the detective work underneath medicine. If anybody thinks that what you see on television is real, even the nonfiction television, they should probably be banned from television, because of course, it's not real, even nonfiction television, and House was totally fiction.

Lisa Sanders: I made my recommendations. I learned this the hard way. In the first season, one of the writers, Tommy Moran... I love him. He's so funny. He's so funny, so smart. He wanted to intimate a kind of oral genital contact between two consenting adults, and so he said that the guy had some rash inside his mouth. He said, "Yeah, he has bacterial vaginosis," and so I wrote this long memo about how it couldn't be bacterial vaginosis. That would never live in your mouth, and if it did, they would never call it that. Then I gave him some other suggestions.

Lisa Sanders: "You can make it syphilis. You can make it gonorrhea." There are so many things you can catch that way. Why pick the one thing you can't? I gave him a page and

a half memo. I don't write those anymore, but this was a long time ago. He wrote me back one line, he goes, "Yeah, my way is funnier," and you know what? It was. I saw it. I knew it was wrong, but it was funny.

Jeremy Corr: Lisa, you're looked at by many as a champion for rare illnesses and hard to diagnose problems. One of the things I find interesting is that when we email you, you have an automatic reply about how you're not able to help everyone that reaches out to you. I'm curious, what kind of volumes of emails do you see from people reaching out for help, and what kind of resources out there for people who have these hard to diagnose or rare conditions? I know of a few but they're very, very expensive. Can you talk a little bit about the volumes of emails, what kind of resources there are out there, and are there any affordable ones?

Lisa Sanders: I get, I don't know, 50 or maybe some days 100 emails a day from people I don't know who are asking for help. It's breathtaking. Until about three or four months ago, I answered everyone or as many as I could. If I was attending on the wards or got really busy, then they would fall through the cracks, and I wouldn't answer them, but I sent out thousands and thousands and thousands of responses. Then I just realized, "I can't do this." Most of these people do not have rare diseases, but I think far too often, they don't have a relationship with a doctor who's paying attention. When I attend on the wards, I rail against patients who pass through the hospital untouched by human thought, who get slotted down the COPD pathway no matter what, and then get stuck there as a COPD patient.

Lisa Sanders: Nobody is the perfect COPD patient. Every single patient has to be touched by thought, I think. Well, that's what I teach, and that's what I try to practice. It's what keeps medicine interesting is knowing that every single patient you see is different from everyone you've seen before, even though they might share similarities. I think that a lot of patients end up writing to me because they feel untouched by human thought. I think that's one thing. I think some of them do have rare diseases, and some of them have diseases that are hard to diagnose. My thought on this is that we should have a specialty that focuses on rare diseases.

Lisa Sanders: It used to be that the internist focused on rare diseases, and everything else was taken care of by something that doesn't exist anymore, I called the general practitioner, who had one year of training after medical school, and so everybody. It was up to them to take care of the patients who had the usual stuff. But now, that doctor doesn't exist anymore, in part, because the usual stuff turns out to be incredibly complicated. The usual stuff is chronic disease. That's what most people have. Most lives are going to be saved by better addressing the things that most people have, so most internists now are specialists in chronic diseases.

Lisa Sanders: That means that there's an opening for the other part of our job, the job of diagnosing the weird things. It's not to say that an internist who specializes in

chronic diseases will never diagnose something unusual. Of course, they will, just like a cardiologist might diagnose something that's not related to the heart. It just happens. But there are kinds of expertise that I think can be offered to internists. The same way we train our internists to be experts in chronic diseases, we train our internists to be experts in hospital-based medicine. I think that there's a need and an ability to train doctors, internists, to be experts in these rare diseases that are hardly ever seen.

Lisa Sanders: I think that that is one way we can address these things. As there is now, I mean, there's the Mayo Clinic and the Cleveland Clinic, and then the NIH has their undiagnosed diseases specialists. I think there are resources, but I think there needs to be a lot more resources linked to this available to those patients who aren't getting a diagnosis, who really do have something unusual.

Robert Pearl: If you had a magic wand, what's the one part of the physician culture that you would change and the one part you would never discard?

Lisa Sanders: Well, what I would change is a little bit inside baseball. I would change the way doctors are paid, because that is the way to really change a culture is by putting your money behind things that you value, and moving money away from things that you don't value as much. I would make sure that primary care doctors were paid well, and that insurance companies didn't pay for things that we know for sure don't work like meniscal surgery for knees. We know there was a fantastic study done, I don't know, 15 years ago, where they did a double-blinded randomized trial or a single-blinded randomized trial, where the patient didn't know if he got the real surgery or the fake surgery, and they did exactly the same.

Lisa Sanders: You would think that would be the end of that surgery, but it's not, and it's still paid for. It's still paid for top dollar. I would change the way doctors are paid to reflect the real value that they have in patient care, but I would never change what brings people to medicine. In some ways, Wall Street did medicine a huge favor. It sucked off all the people who are just after the big bucks. I mean, if somebody really was after the big bucks, really, would you want to go to medical school? I don't think so. I mean, unless you were nuts or dumb, in which case, you couldn't actually get into medical school. I love what brings people to medicine.

Robert Pearl: Thanks, Lisa, for being on the show today and for providing your in-depth insights and perspectives on the culture of medicine to our listeners.

Jeremy Corr: What do you think about what Lisa said, Robbie?

Robert Pearl: Jeremy, I loved her insights, her honesty and intellect. She clearly understands the intersection of the systemic problems of medicine and the cultural ones. I concur with her that we need to change both in order to address the shortcomings of American medicine.

Jeremy Corr: Please subscribe to Fixing Healthcare on Apple Podcasts or other podcast software. If you liked the show, please rate it five stars and leave a review. Visit our website at fixinghealthcarepodcast.com. Follow us on LinkedIn, Facebook, or Twitter @FixingHCpodcast.

Robert Pearl: We hope you enjoyed this podcast and will tell your friends and colleagues about it. If you want more information on these topics, you can visit my website, RobertPearlMD.com. Together, we can make American healthcare once again the best in the world.

Jeremy Corr: Thank you for listening to Fixing Healthcare with Dr. Robert Pearl and Jeremy Corr. Have a great day.