Primary Care Cures

Episode #36 – Dr. Uli Chettipally

Ron Barshop: Most problems in healthcare are fixed already. Primary care has already cured on the fringes. Reversing burnout, physician shortages, bad business models, forced buyouts, factory medicine, high deductible insurance that squeezes the docs and it's totally inaccessible to most of the employees.

Ron Barshop: The big squeeze is always on for docs. It's the acceleration of costs and the deceleration of reimbursements. I want you to meet those on this show that are making a difference. With us, Ron Barshop, CEO of Beacon Clinics. That's me.

Ron Barshop: We know the 10,000 medical errors happen daily, but most aren't deadly serious. But here's how many are. What if every week, 60 737s fall? What if every week 60 737s filled with passengers went down? What if every week 34 movie theaters full of people burned down, every week? That's how many we lose to medical errors, over 700 daily. And by comparison we lose about 20% of that to opioid deaths, which is all in the news.

Ron Barshop: So this is right behind cancer and heart disease as a cause of death. We're expecting about 405,000 to 450,000. The problem is coroners don't use medical errors as cause of death. It's something you have to work backwards and figure out. Every state has different laws for reporting cause of deaths. So medical errors, you're actually safer in your car or in an airplane than in a hospital, unfortunately.

Ron Barshop: What's a related dirty little secret? Most don't know about their doctor related to this problem. Burnout, it's a major contributor to medical errors and there's a better than 50/50 chance your primary care physician, which is your family doc, your mom's OB/GYN, your kid's PD, your grandma's internal medicine doc, 50/50 chance better than that if they're a PCP that they are also burned out. So your attending nurse, even worse, same odds. Your specialist, about four in 10 have burnout.

Ron Barshop: So your docs and nurses likely are not at their A game when they're handling your care. There is no other profession this badly frazzled. What's going on? Well, so what drives burnout? Let's look at the root causes. The survey say EHR is a big headache and people feel like a typist when they're not able to talk to their patient but they're stuck in their

keyboard. Factory medicine is also listed because it's forced on docs to make a simple living.

Ron Barshop: I say those surveys are asking the wrong question. There's a root cause to the root causes. It's about primary care and ER have really become a bad business model. In fact, on a business model score, they'll rate about a one to two out of a 12. It as bad as it gets, so it's not EHR, it's not poor face time with your patient. It's not volume pressures. These are symptoms not the root cause, which is a bad model.

Ron Barshop: I'm aware of two rapid fixes to this bad model problem. Direct primary care solves that problem and ancillary income solves that problem. They're obvious and quick solutions to burnout and medical errors by extension. The top 1% PCPs that use one or both strategies to take their business in different model direction also score about in the middle of the 12 score as a model. So how else can we actually be relieving the burden of PCPs in ER docs?

Ron Barshop: Ask the guy who won an award at the largest primary care group nationally for doing just that. Meet our guest today, Dr. Uli Chettipally. He is a triple threat. I call him because he's an academician. He's a practicing ER physician and he's an entrepreneur, innovator, MD and author. Let me tell you more about Dr. Chettipally.

Ron Barshop: He's very passionate about technology enabled care that can decrease the burden for physicians and increase their quality for their patients. He's designed, developed and implemented a clinical decision support system to deliver realtime guidance at the point of care, which I'm just incredibly curious about what that looks like.

Ron Barshop: To decrease the cognitive burden on physicians and improve patient outcomes in 21 hospitals at Kaiser, he received the Pioneer Award for his team and he also won another team award at Kaiser Permanente for his groundbreaking work. So Dr. Chettipally, welcome to the show.

Dr. Chettipally: Thank you, Ron, for having me. It's a pleasure to be speaking with you.

Ron Barshop: Tell us more about what this platform looks like for the physician and then for the patient.

Dr. Chettipally: So the platform is called RISTRA. It stands for risk stratification. If you think about a emergency physician's work in the emergency department, it is mostly trying to figure out is this case going to get worse or is it going to get better? Mainly it's a triage function. So to understand the triage function and also to understand each patient's risk, we developed a system that can look at all of patient's data that is living in the EHR, analyze that

data and provide critical decision support to the physician at the point of care, which is while they're seeing the patient in real time.

Dr. Chettipally: So that's the one line description, although it's complicated. So let me give you an example. And the example is one of the most common conditions, patients come to the emergency with chest pain and chest pain can be dangerous, because it could be a heart attack or something bad like that. So how does the physician know if this patient is having a heart attack? What they usually do is they will talk with the patient, talk about symptoms, talk about how long have they have had the chest pain, what type of pain, etc., etc.

Dr. Chettipally: But they also run some tests, blood tests, EKG, and then the watch them in the emergency department. If they feel that the patient is at moderately high risk, they will observe the patient in an observation unit or sometimes they'll admit them to the hospital. Now we know that only a small percentage of these patients actually are at risk. A bulk of these patients, stay in the hospital for a day or two and then they go home.

Dr. Chettipally: But for a physician to make that decision, he needs more than just the lab and EKG data and the history data. So we devised a system which looks at all this data, patient's history, patient's demographics, the symptoms and signs and EKG and lab test results, mainly the troponin test results. And we put that into a calculator and the calculator comes up with an answer. And the answer could be this person's chance of having a heart attack in the next seven days is .03% or something like that.

Dr. Chettipally: And based on this risk, it also gives us suggestion to the physician saying that since this risk is so low, you can actually do A, B and C, which is send the patient home or it can say repeat the test in two hours or it can say call the cardiologist if it is high enough risk. And so that's what it basically does.

Ron Barshop: Is your calculator a moving target in that as we learn more and more about, say heart risks, that your calculations will change so that we'll know this is definitely indigestion or something else. Is it a set algorithm or is it a moving target?

Dr. Chettipally: So the way we designed the study, it's a research study, obviously. We are doing a clinical trial and then as we get results, we adjust the calculator based on the results. So it gets better and better with each iteration.

Ron Barshop: Mm-hmm (affirmative). Well, some people call that artificial intelligence. Is this that?

Dr. Chettipally: It is getting to that. We're not doing the calculations based on the current data, although for that patient it is current data. What we did was before we started this, we did a retrospective study looking at 100,000 patients to see what happens when we use these calculators on these patients. And so based on that, we built this system like an application.

Ron Barshop: Okay. So what influenced you to work on this change? Did you get a spark in the middle of the night? What led to this?

Dr. Chettipally: Yeah, this happened about 10 years ago while I was trying to figure out what I should do other than... Seeing patients in the emergency is great, but as a physician, I am changing the life of one patient at a time. I was wondering, is there a better way of taking care of these patients?

Dr. Chettipally: And that's when the electronic health records had become popular. And within our system at Kaiser, we have become paperless, and we've had data for several years on these patients. And I thought, all right, it'll be interesting to go back and look at these. And myself and another physician scientist, we banded together started this group called CREST Network, and we started studying a different disease patterns.

Dr. Chettipally: For example, stroke. What happens when you have an order set for these stroke patients? Do they really need a swallow evaluation? Does that make any difference in the outcome? So one of the good things about electronic health records is you can actually go back and look at the data to see what the outcomes are and hopefully that'll help you change what you're doing with the patients so that you can better the outcomes.

Ron Barshop: So let's both agree that this is something that makes a really good sense. And let's say that the largest PCP group in the country recognizes it as such. How does something like this spread into what's famously a slow adopting world?

Dr. Chettipally: That's a major challenge. Well, the first major challenge is, it's the business model of healthcare. So one of the things with data based decision making is that it works great in a value based system. It does not work great in a fee for service system. So if majority of population is under a fee for service system, then this will not work because one of the reasons why we collect data is to make the outcomes better and better. And that may not make business sense for a fee for service system.

Dr. Chettipally: So first thing is it has to be value based. So the second thing is that you have to have a certain amount of data already in your system. So that means that you have to have a good EHR system, which has collected data on your patients for the last several years. So some of the large systems

have these and they do have large teams of analytics, people working on these.

Dr. Chettipally: So the third requirement would be you need to have skilled people. So a system like Kaiser Permanente has in Northern California we have about 600 or so researchers that are looking at various things. And they need to be, obviously, you need statisticians, you need programmers, you need the infrastructure to be able to do that.

Ron Barshop: What do you think that needs to happen with this model or this software for the world to use it so that it's in a practical sense in every office in America?

Dr. Chettipally: Yeah, so a number one, you need the electronic health record. You cannot do this without an solid electronic health record system and you need people, you need leaders who understand the value of this kind of a clinical decision support system. Now when you think about practice of medicine, they say it is art and science and in order to be able to do the art part, you need to have a solid science backing you up. And so, I see data science as the solid science that'll help the physicians.

Ron Barshop: What other challenges are you facing in getting this support system out there?

Dr. Chettipally: The biggest challenges is of fear and lack of education, I would say. Especially some of our leaders, they need to be educated that this is the way the future is going to be. And so instead of worrying about, oh, will this work? Will this break down? Will this take away jobs? Who will this... So there are a lot of worries that people are scared of machine learning and artificial intelligence in general in healthcare. So I would say that education and having people test these things at a small scale.

Ron Barshop: It's funny, I don't know that people are as afraid of it as they don't understand that it's going to give them super powers. They're going to be able to have much better control of their patient's care. They're going to have much better, it could be a shorter visit if you get all the data right in front of you. You don't have to rummage around and figure out what's going on when you have some other tool helping you with your decision. So decisions [inaudible 00:15:13] it's perfect, perfect name for it, isn't it?

Dr. Chettipally: Yes. Yes, exactly. So what we have seen is that the length of stay decreases. The downstream testing decreases, the admission rates decrease and the patients are happier because now they get a real estimate of their risk. And so everybody understands and then the physician is happier because they don't have to stress so much about their decisions because

now they have some support that will help them make the right decisions. And so we are seeing some great outcomes from the system.

Ron Barshop: So Dr. Chettipally, I want to take this conversation in a slightly different direction maybe than I even thought it was going to go. But it seems to me that right now about a third of the physicians are over 55 years old and they're notoriously slow adopters. People that have been doing it their own way for decades aren't going to adopt something new and exciting like this.

Ron Barshop: And as they're retiring and leaving the practices, there's not enough physicians to take their place. So we have a doctor shortage that's acute in primary care and acute in rural areas. It's acute in some urban deserts for care. It's just getting worse and worse. And I don't understand something that just seems like such a natural answer that's not about nurses and mid-levels. And it's not about opening more schools, which is going to take too long.

Ron Barshop: What we have as a xenophobia in this country of foreign MDs who have already gone through a residency in Mexico or India or Pakistan or Nigeria and they have been trained and they have a good command of the English language and there's about 5,000 of them that aren't given residency slots because we don't have enough slots. And there's six states right now that have advanced their laws to allow residents of countries, foreign MDs, to be, don't pass go and jail and go directly into the the business. Because all those States recognize that the shortages are going to affect every one of their residents. How do you feel about allowing foreign MDs to enter our system a lot easier and a lot less expensively and a lot less time consuming than is the current seven year drill?

Dr. Chettipally: Well, so one of the biggest problems is that I think we have created some extra work because our systems are so inefficient. We have created extra work for physicians. We expect them to type or enter data, a lot of data. And so, and that could be one of the reasons why physicians are burning out. The other thing is that a lot of the data that physicians enter is not necessarily useful for the patient nor for the outcome. And so we need more intelligent systems where we are collecting the right data and just that not extra stuff.

Dr. Chettipally: So that creates more work, which means that you need more physicians, which means that they'll be a shortage of physicians. So I feel that technology can make things more efficient so that you don't need a lot of extra work, which means you don't need extra physicians. But physicians can do best what they do best, which is taking care of the patient, which is the art of medicine. That's where we need to focus physicians' expertise in.

Dr. Chettipally: Now, as far as how things are going to change in the future. Nobody knows, whether lower skilled people will be used to do certain jobs. That's a possibility. But what the system right now is, I think it's making physicians do too much work, which is meaningless.

Ron Barshop: Good answer. There is a organization you belong to called Society for Physician Entrepreneurs. It also has a chapter here in Houston, and I'm assuming in every major city. Tell me what goes on in those meetings. I know you're very involved in the leadership of that. Why should physicians be attending those meetings?

Dr. Chettipally: So if you think about healthcare, who are the leaders in healthcare? If you think about the science and the art of healthcare, it is the physicians, right? So we need to encourage physicians to innovate, to think outside the box, to think outside of whatever they are doing in a day to day basis.

Dr. Chettipally: And one of the ways they can think about these things is through entrepreneurship. We do have several chapters within the United States and and outside. I run the San Francisco Bay Area chapter. We have about 500 or so physicians who are members and we hold monthly meetings. And the great thing about the Bay Area is that we have a lot of startups in this area, especially with the technology industry and the biotech industry booming in this region.

Dr. Chettipally: So we bring in startups, two or three of them, and they make presentations and get feedback from the physicians. Now a lot of startups have actually developed products and services and they go into the market and they try to implement it and the physicians won't use it. So this is a great place for them to test their models, test their in a market fit. A physician will immediately say, "Hey, I'm not going to use this," or, "This is great you should do X, Y and Z." And so they get great advice. They get great mentors from physicians.

Dr. Chettipally: So for physicians it's a great way to get their... I would say that the other part of their brains starts to work, which is, wow, this is interesting. This is a new area, and then they get involved. So, physicians like it and also the startups like it.

Ron Barshop: I went to our local chapters meeting last week or the week before and a speaker was interesting. The discussion was lively. I was the only guy there not in scrubs that actually had a suit on and I felt completely out of place but loved every minute of it.

Dr. Chettipally: Yes. And most of our meetings are open to a non physicians also, because we know that we need engineers, we need nurses, we need pharmacists, we need business people to weigh in on things, whether it makes business

sense or not. And so we have a good ecosystem of the startup community here.

Ron Barshop: Well, it sounds like the Bay Area is a model for the rest of the country. I know Houston has medical city, but I don't think it's medical entrepreneurs startup capital like it is even remotely like San Francisco or even San Diego.

Dr. Chettipally: That's true.

Ron Barshop: Let's talk a little bit about what is the current reading you're doing that is going to help physicians understand what you're trying to do and how they can advance their practices?

Dr. Chettipally: Well, I'm reading a lot about burnout. One of the things that comes to mind is Paul DeChant, he is a physician with the IBM Watson group. He has written a great book on on this, and I'm reading that right now. But if you think about why are physicians burning out? I think one of the ways that physician lost control of that switch of that dial, which keeps increasing the speed of which physicians have to see patients.

Dr. Chettipally: Now if you think about why do physicians have to see patients, they are taking care of patients, but there are other methods to take care of patients other than seeing them in the clinic. And until we realize that and change the system to fit that model, physicians are always going to be running faster and faster on this treadmill.

Ron Barshop: Teladoc is based in Dallas, Texas, not too far from this microphone and they're the largest in the country. I think they take care of every federal employee in the country. So Texas has got a big telehealth presence here, and the interesting thing to me is that I learned from speaking with one of our guests, Nora Belcher, is that less than 1% of the patients are adopting it even when it's paid for in their insurance program. Telehealth is still an infant, isn't it?

Dr. Chettipally: It is. I think there's a lot of potential there, but then again, the telehealth should not be tied to the visit, which is, oh, if you do one telehealth visit, you get paid X amount. So whenever you tie a visit or any service to a dollar amount, that's when we run into problems because the payer is going to say, "Oh, we are paying $10, but next year we are going to pay $8. Next year we're going to pay $6." So physicians will never win that race because as long as the payers have the control of what they're going to pay, the unit price, so the best way to deal with that is get rid of the unit.

Ron Barshop: I agree with every word you're saying. It's interesting though because again, the older doctors are not going to adopt value based care simply

because it's too radical of a change for them too late in their career and they're not going to change careers obviously. And a lot of young people are going to work for corporations so they're going to do whatever they're being told. But it seems to me that the whole concept of value based care is not catching on as quickly as we'd all hoped it would either.

Dr. Chettipally: Yes. I mean obviously there are vested interests. It's going to shrink the whole pie of healthcare, and obviously there'll be losers and, and they will fight tooth and nail to not change that. So that's expected. But then with the healthcare spending reaching 20% of your GDP, that starts to affect every single person in the country and not just the people who are sick. And so do we want this, as some great businessmen called it, parasite, to suck up the resources from the rest of the country, the healthcare industry.

Ron Barshop: Yeah. It's interesting. I would push back on that last statement. So it was Warren Buffett and he called the healthcare the tapeworm on our economy, which is just the perfect analogy, tapeworm. But to attack the physicians, the caregivers, which represents less than 5%, particularly primary care, represents less than 5% of this $3 trillion spend, and you're now taking maybe one or two or five or 10% off of their earnings. It just seems like a not intelligent way to attack the cost problem. I'm going to take 1% out of 5% and boy, are we going to save big bucks.

Dr. Chettipally: Now, I'm not talking about the physicians. I'm talking about the other 90% of the costs. The other 90% of the costs are controlled by physicians, or at least most of it, the hospitalizations, the the medications, the procedures. So all those things are controlled by physicians, but the physicians are not getting the benefit of working hard. And so, I would propose a system where physicians get paid more rather than less.

Ron Barshop: Mm-hmm (affirmative), we agree. What is your message, if you could fly an airplane over all of America with a banner on it, what would that message be to Americans?

Dr. Chettipally: We are spending so much money on healthcare and we are not getting the best care. We already have a gold mine of data in our electronic health records. I think we should go in and take a peak and pull out those nuggets and use it in our practice so that patients are healthier and the outcomes are better.

Ron Barshop: Excellent. What is the best way to find you, Dr. Chettipally, if folks want to contact you to learn more?

Dr. Chettipally: The best way to find me is on LinkedIn, Uli K. Chettipally, MD, MPH. You can search me and there's not many Chettipallys on LinkedIn so it should be easy to find me.

Ron Barshop: And Uli is spelled U-L-I. That's how I found you exactly.

Dr. Chettipally: That's right. That's [crosstalk 00:28:38]

Ron Barshop: Terrific. Well, thank you very much for your time. It's been a great interview and I've enjoyed every minute of it and we'll get your back to see how you're progressing.

Dr. Chettipally: And let me put a plug in for my book if you don't mind.

Ron Barshop: Of course.

Dr. Chettipally: I recently wrote a book, it's called Punish the Machine! The Promise of Artificial Intelligence in Healthcare. The website is punishthemachine.com. You can buy this book online on Amazon or anywhere else books are sold.

Ron Barshop: So thank you very much again for your time. We are looking forward to watching your career.

Ron Barshop: Thank you for listening. You want to shake things up. There's two things you can do for us. One, go to primarycarecures.com for show notes and links to our guests. And number two, help us spotlight what's working in primary care by listening on iTunes or wherever you get your podcast and subscribing and leave us a review. It helps our megaphone more than you know, until next episode.