

John Marchica:

Welcome to Health Care Rounds. I'm your host, John Marchica, CEO of Darwin Research Group and faculty associate at the Arizona State University College of Health Solutions. Here we explore the vast and rapidly evolving healthcare ecosystem with leaders across the spectrum of healthcare delivery. Our goal is to promote ideas that advance the quadruple aim, including improving the patient experience, improving the health of populations, lowering the cost of care, and attaining joy in work. Please send your questions, comments, or ideas for Health Care Rounds to podcast@darwinresearch.com. And if you like what you hear, please don't forget to rate and review us wherever you get your podcasts. Let's get started.

Kim:

Dr. Hale is CMO of VirtuSense Technologies, a healthcare company that is using proprietary technology and Artificial Intelligence to reduce adverse events within Hospitals, Skilled Nursing Facilities and Senior Living Communities. Dr. Hale previously worked as Sr. Vice President for Care Solutions at NAVVIS Healthcare, a position that he assumed after a 37 year career at Mercy Health where he was the leader and clinical architect of the world's first virtual care center. As Executive Medical Director of Mercy Virtual, Dr. Hale led the development of new ways to effectively and efficiently deliver health care to Mercy communities, large and small.

Prior to being named to his current position, Dr. Hale maintained a general internal medicine practice for 23 years. He was a founder of Mercy Medical Group and served as its first president for 15 years. During this tenure he was also the lead physician for one of the largest Epic implementations at the time. In 2010 Dr. Hale transitioned from his medical leadership position and created Mercy's Center for Innovative Care. He was the clinical architect for Mercy's virtual care center and associated strategies. Since the opening of the Mercy VCC in 2015 Dr. Hale has participated in the building and implementation of two additional virtual care centers outside of Mercy Health

Dr. Hale holds a Ph.D. in pharmacology from Saint Louis University. He received his medical degree from the University of Missouri-Columbia Medical School subsequently completing his internal medicine internship and residency at Mercy Hospital St. Louis leading to Board Certification in 1983. In 2011, he earned a Master's degree in medical informatics from Northwestern University.

John:

So, Tom, to orient to your listeners, tell us a little bit about your background. And first I wanted to say thank you upfront for taking the time to speak with me. By the magic of podcasting, we will have already read in a stiff bio for you, but maybe in your words where you've been and where you are now?

Tom:

No, I appreciate that John, and knowing that the bio has already been presented, let me just tell you some highlights. So after I got a PhD in Pharmacology, I went on to medical school and then became board certified in internal medicine, started a practice, general internal medicine, and realized really quickly that it would be difficult to get some of the things done that I wanted to do for my patients, unless we were much better organized. So a group of physicians partnered with Mercy Health, and we started Mercy Medical Group of which I was the president for 15 years and one of the original founders. And at the time that I moved on to other things, it was about 375 physicians in total, 200 primary care and about 175 specialists. From there, I was asked to be the lead physician for our Epic implementation,

which at that point in time, I think I was blamed for divorces and messes and all sorts of other things as we moved to electronic medical record.

Tom:

And that became my first actual understanding of what real change actually meant, particularly with technology. Following that implementation, which was 344 hospitals in about 2000 physicians, the CEO of Mercy asked me to start an innovative care center, which then became evident to us, evolve into what we labeled as Virtual Care. It was more than just telemedicine, it was all the rest of the things that supported telemedicine, which was the technology, the data, but also the preservation of relationships. And it was at that time, we established the world's first Virtual Care Center, which I was the clinical architect for in St. Louis, Missouri. And then I retired from Mercy at that point in time, where I was the executive medical director of the Virtual Care Center for about five years.

John:

Okay. And we're going to get to your new company, but I wanted to talk a little bit about the Virtual Care and the time that you spent as a precursor to the big building. I think a lot of our listeners will know that that center, it's one of a kind and is one of the largest, if not the largest in the world, right? At this point in terms of services offered, number of visits, certainly top five. So I wanted to talk a little bit about some of the early lessons that you learned, some of the key wins with this application of this technology, and what were your observations?

Tom:

Yeah. No, I appreciate that. We actually started at Mercy before we evolved into the Virtual Care Center type of thinking. We started with the eICU, and I would recommend to anybody that that's never where you should start. It's one of the most difficult processes, even though it's highly developed at this point in time, but it also is the less economic rewarding and it impacts actually the fewest of patients that you can impact, but it is very important. And we started with the eICU, and one of the first things that I learned actually, which was interesting because we started with one-way video, we had video into the room and then we had audio with the nurses at that point in time. And then we would make recommendations because as we observed the patient 24/7, we had all their data feeds coming in and we'd make recommendations.

Tom:

Our compliance was actually very low between our recommendations and what the nurses actually ended up doing. About six to nine months into it, we moved to two-way video and now they could see us at the other end. And interestingly, their compliance went up 60%. And what I gathered from that was that now all of a sudden, we had a relationship. That video feed, that video picture, just like a Zoom meeting, or are a lot of things that we've done with telemedicine recently since the pandemic, it is now viewed as a relationship. And we did carry that through with some of the other things we did. The second project that we went to, so we gathered all this data from the eICU, and it was remarkable 24/7 seven information that we'd get and apply algorithms to that. And so we decided to do a project on sepsis in the hospital.

Tom:

And this is where we came through with what we've labeled as the virtual care paradigm, or the telemedicine paradigm. We took our patients as they entered the hospital, and we took those that were

at the highest risk for developing sepsis. And it was about 20% of the patients that were admitted. And then we monitor those patients 24/7 as best we could, because we did not have a lot of continuous monitoring necessarily on some of the acute floors, which gets to something we'll talk about later in our evolution. And then we took that information and we took it to a centralized repository, of which a nurse could actually cover 1,000 beds because the computer, artificial intelligence that was behind it, supporting her.

Tom:

And when someone's vital signs changed, and it looked as if they were beginning to develop sepsis, initially we called the doctor. And I'm a physician, so I don't take this personally, but that was a disaster, because we called the doctor and that's where we added a lot of variation because half the doctors would say, "Great. Follow through." And the other half would say, "I just saw the patient tonight. We'll wait till the morning." And people don't understand that by the morning, in sepsis, you might be dead, or suddenly you've evolved into a much more serious condition. So we took that out of the workflow. And so the paradigm was, you segregate your patients that you're testing, you centralize the information in a central location, and then you send the alerts to those that can act at the bedside. And it was remarkable what happened because it took the variation out of the care, this was the other aspect of that we learned as we developed, that you have to get rid of variation.

Tom:

And I guess the best example was that we decreased the evolution of severe sepsis to septic shock by 90%. And we actually decreased both our results and morbidity on severe sepsis and septic shock by some 40%. So it really was fun. Our best results were in the emergency room and the ICU, the least best results were on the acute floor. And that was all about the whole monitoring situation.

John:

So when you say that you remove the doctor, is it... So a physician is monitoring this, or was it the nurses? Or in other words, how are you able to remove that part of the equation and eliminate the variation?

Tom:

Yeah, so remember, we centralized all the data to one area, to one nurse who is being supported by the computer. And the nurse at that time sent the alert to the rapid response team. In the initial part, we sent the alert to the doctor and the doctor either sent it to the rapid response team or didn't. And so, we sent it directly to the rapid response team who went to the bedside, reassess that patient, and if they met all the criteria that was agreed upon by the physicians ahead of time, then they administered the sepsis bundles to that patient. And so what we decreased was actually A, the variation of sending the alert to the nurse directly, rather than having it screened by a central location with AI. And then secondly, taking the doctor out of the decision-making process because he or she could not be at the bedside, like the rapid response team.

John:

Makes sense. So then you said, where you performed worse was in the general floor?

Tom:

Yeah. So this was another learning, and actually has set me to where I am today, because on a general floor, we weren't monitoring the vital signs on a continuous basis like we were doing in the ICU and the emergency room. And so we may have only gotten four or five data points. We still had a better impact because of the decrease in the variation, but we needed more data. And we asked Phillips interestingly at that time, and maybe I shouldn't say the companies, and they said, "Sure, we can virtualize your room for monitoring, it'll cost you \$60,000 a room." Well that didn't fly. And it isn't until recently, now that we, and we'll talk about this later in the talk, but where we have a wearable technology that is as good as what I was using in the ICU back in my days, that can then sample that data, 64, 128 times during the day 24/7, unobtrusive to the patient, including oxygen saturation, blood pressure, pulse, temperature, core body temperature, all sorts of things.

Tom:

And now, I can't wait to restart that whole sepsis algorithm again, because now we'll have data points that we'll be able to impact a great number of more people as though they were all in the ICU.

John:

So now let's get to why I'm excited to talk to you and how we were pulled together, and that's your latest venture where you're chief medical officer with VirtuSense. This technology is amazing. I couldn't believe it when we were talking about this just last week. Maybe talk a little bit about the technology and then how does AI predict when a medical event is about to happen or when some event... Like a fall?

Tom:

Yeah. No, I appreciate that. So VirtuSense, I was very fortunate after I retired from Mercy to get hooked up with VirtuSense, it was shortly after I retired. And VirtuSense is a company that is not a technology company, it's an artificial intelligence company. And what they do in general is take information from sensors, and then that gets into their machine learning, artificial intelligence engine, and algorithms that then can take that data and say, "Okay, this is an alert. We are about to have an event." What they started with was a fall prevention, and they used lidar technology, the infrared technology that one sees in autonomous automobiles. We send out 22-some-odd RF sensors out onto the patient's body. And after millions and millions of hours of monitoring patients to build that algorithm is the artificial intelligence engine began to discern the difference between someone's sitting up and then someone making an attempt to out of bed or get out of a chair.

Tom:

An example would be, be able to tell the difference between the patient and a curtain which may move like a person if a breeze comes through, or the ability to be able to tell someone is two feet from the bed and therefore assisting that patient instead of that patient getting out of bed on their own. And what ended up happening was the creation of something I never saw. And I think we've seen this by the way, with the advent of the vaccines in such a rapid period of time using artificial intelligence and computer technology, the development of a highly sensitive, meaning that this picks up the patient beginning to exit to the exit of the bed or the chair, and highly specific meaning that the false alerts of what's happening to that patient is less than one in a 24-hour period. And so what ends up happening is we can tell when the is getting out of bed even before they physically feel that they're getting out of bed, and give the nurses an alert with 60 seconds of anticipatory time to go to the room.

Tom:

And instead of greeting them on the floor, which is what happens today, they greet them at the bedside before they exit the bed, or at the chairside, before they exit the chair.

John:

That is amazing. How does it-

Tom:

It's cool stuff. How do it do that?

John:

How do it do that? How does it know or anticipate? I get it, of a movement sensor, but is it just based on thousands of patient encounters, the AI knows that, "Okay, this is this patient within the next 60 seconds or so is going to attempt to get out of bed and they shouldn't be on their own." Is that how it works?

Tom:

Yeah, but it has to start somewhere. So it starts with one patient, and it's wrong as often as it's right. But then it corrects itself, it says, "Okay. What I thought was getting out of bed wasn't. Or what I thought wasn't getting out of the bed was." And so it continues to correct itself, machine learning, and the algorithms begin to develop for the AI. So on millions of hours of monitoring patients, it continues to get better. And with our first effort, when it came out, there were probably three false alarms because we mistook getting up to eat, we mistook somebody by the bedside, and the person starting to stir was a false. So there's all those things that, as we put it into practice, it kept getting better, and it will continue to get better.

Tom:

But the beauty is... So it by itself, doesn't stop somebody from falling, right?

John:

Or person.

Tom:

If nobody was around... If there was a tree falling, do you hear it in the forest? If a person gets up and no one's there to greet them as they're getting up, they'll fall. So what it is, and I think we should continue to make this distinction because we can do the same thing in sepsis where we can maybe pick up their heart rate and the respiratory rate going up, a little bit of a variance, but enough to say, "Okay, their core body temperature, even though you don't register it, is beginning to increase and this patient's now developing early sepsis." But it shouldn't then say, "Okay, now we're going to automatically give this patient medication," because that's taking the decision making process and the physician, nurse end of it, out of it, which is not something that you should do. But what it can do is now give actionable information to somebody that can do something long before they could have known about it in the past.

Speaker 1:

Just sticking with fall prevention for now, it sounds like that's working in the hospital setting, but we also know that this is a serious problem in the home. And so how do you, or can you apply this technology in the home so that when Mom is trying to get out of bed and she shouldn't, that someone is alerted?

Tom:

Yeah. So let's do one thing first, how do we identify those that are at risk and how can we help them if they're at risk today, either through physical therapy exercises or alerting the family that they're at risk, and we've got to change things around in their house? We did a very bad job of that in the past as physicians. And it's a \$50 billion problem for Medicare, from an economic standpoint. So we took this same technology and we put it in a doctor's office, and within 10 seconds, it can watch the patient walk... Less than 10 seconds, actually, same lidar technology and artificial intelligence to say, "Okay, because of the patient's gait speed, because of the patient's weaknesses and whatever, they are either at a high risk, medium risk, moderate risk, or low risk for falls." And here, if they're at a high risk, this is what we can do from a physical therapy standpoint and exercise, in order to make them better.

Tom:

We did that for Medicare actually. And we decreased falls at home by 70%. That's a significant impact without putting anything in their home. Okay. So, you didn't need anything different other than just identify that someone is at risk and then give them a plan as to how they can be better. But you can use the same technology in a home. Actually, what it can do, and we've begun researching this, is you can actually tell if someone's taking their medication because it can learn the motions that one does in order to get out the glass of water, get the pill out, put the pill in their mouth, swallow the glass of water. And now with the same technology you can tell if someone's is being compliant, maybe forgets, whatever, and send alerts which, even in my opinion, is probably more important than deciding whether or not they're making something for congestive heart failure or whatever, because more people are not compliant, which causes more problems than anything else. That, and do you have your doctor's appointment, that's what causes all the readmissions today.

John:

Yeah. So what about predicting a heart attack? What about sepsis as you mentioned, is that the credit card size thing that you were talking about?

Tom:

Yeah. So, we are now in partnership with a company who makes a credit-card-sized device that you can wear on your arm, and it has a battery life of 17 days. You can actually leave your house, come back to your house, it downloads all the data, and it measures your blood pressure, your respiratory rate, your pulse, your temperature, your oxygen saturation, it gives a 3-lead EKG, all wirelessly done, downloads into the AI software. And then can monitor patients of... Say someone's discharged from the hospital, you have them on this monitor, you can tell whether they've developed a bladder infection. You can tell whether they've developed any kind of infection for that matter. So you start to now take this continuous monitoring and artificial intelligence into the home unobtrusively. And so they don't have to be tethered to either a bed or a chair or even their room for that matter. And give physicians, nurses, and caregivers the types of alerts and information that they can actually make an impact.

John:

So is it communicating to a device? Is there an app that goes along with this, that has to be... Like, you'd have to give them, if they don't have a smartphone, you give them an iPad or something. Is that how it transmits the information?

Tom:

Yeah, so the process itself, is first you have the data collector, that's the sensor, so that's gathering data. Then you have to drop that data and get it somewhere. You can use QNX, which is a Qualcomm piece, which uses Kindle technology. So remember the old Kindle, probably nobody does because we always have our apps on our phone now, but the old Kindle, you didn't have to have an internet connection. It just sent a low-grade signal to a satellite and it didn't cost anybody anything. Our system works on KBs, it does not work on megabytes or gigabytes. We can do it on a phone, believe it or not. We can send all that data on the phone. Now, video and things like that, obviously take more, but data collection and transmission can happen on the lowest wavelength. It is actually cost-effective to give the patient an iPad so that you both can communicate with them, which gets to the last point I should make that I learned in Virtual, but you can communicate with the patient and also download that data.

Tom:

And when you think that 5% of the people spend 50% of the dollars, it's pretty cheap to give them an iPad, because one of the things we did at Virtual was we did that with those at-risk people. And we learned that the increased access to care, as well as the data that we receive, and we decrease their costs by 60%. The impact on economics is astounding. In a hospital system that has a billion dollars in revenue, and if they were only going on a Medicare Advantage at-risk contract, they would have revenues of \$30 million for every billion dollars, new bottom-line revenue, \$30 million saved for every billion in revenue that they have. So you take Mercy, it has 7 billion in revenue, that's 140 million dropped to the bottom line, just on one contract. You throw in ACOs and your own employees and so on and so forth, you get up to a 90 million for every billion dollars that you have.

John:

So we talked a little bit about this in our previous conversation, talk a little bit about the economics of healthcare. And what I mean by that is, we're in this, what's the analogy that people always use? One foot in the canoe, one foot on the shore.

Tom:

Yes.

John:

And with value-based care, I see the same thing with some of these devices. It's like you can make the cost effective argument, you can make the argument you just made here, \$30 million for every billion dollars in revenue. But my sense is, and you can tell me your real-world stories, my sense is is that the average CFO that's living in a fee-for-service world, doesn't have... Or let's say the less strategic CFOs that are out there, has a shorter time frame and all they're looking at is the price tag. They're not thinking of the potential savings or potential revenue generation elsewhere. Am I right about that or am I wrong?

Tom:

No, you're definitely right, and it's actually even worse. And first off, let me caveat this and say, this is not a value judgment on people in general. People in healthcare are wonderful people and they mean to do extremely well. However, we build an economic model around people that now prevents them from doing the right thing many times. So it's not only that, "Gee, I don't want to make the investment, but that's going to decrease my bed days, which is going to decrease my revenue. So not only do I not want to make the investment, because I can't see how that's going to drive revenue for me, but it's actually going to decrease my revenue if it works the way you say it does." Which is true, because it does decrease fee-for-service revenue, because you do decrease utilization, but you decrease utilization because patients stay at home.

Tom:

You decrease utilization because patients are intervened in early in their disease condition, all good things for patients. So we have to find a way to transition. And it has to be a transition by the way, it can't be... We built an infrastructure around healthcare, that you can't take it apart today. So now how can we maintain the support of that infrastructure while we transition in the economic model? There actually is a good transition model, if people take the time to look at it, but they also have to believe that value payments actually generate revenue. I'll give you a story. There was a medical group, won't even tell you where the area was, but the doctor who was very well liked and supported, came to them one day and said, "We're going to take risk. We're going to take our Medicare Advantage patients and we're going to take risk. Who wants to take a risk?" And then said, "Raise your hand." Nobody raised their hand.

Tom:

He said, "Okay, here's what I'm going to do. We got 9,000 Medicare Advantage patients. I'm going to take all the risk and I'm going to build an infrastructure around that to take the risk. And next year, I'm going to come back and say, 'Here's how much we made, or how much I made, because I took all the risk.'" He comes back next year and says, "Okay guys, it was a good year last year. You all did well, you got paid the way you were supposed to get paid. I made \$12 million last year. And I put that in my bank account. Who wants to take a risk?" Believe it or not, at that point in time, only 20% of the physicians raised their hand.

Tom:

This is what we're dealing with. Even when the economics become evident, the change is slow. It took four or five years to get everybody involved. And they continue to make extremely high profits in the risk business and their patients benefit from that. But change is difficult for healthcare. And the best meaning people, such as in Congress, when it came through with Obamacare to give everybody an opportunity to have healthcare, that was an insurance model, that was to support, economically those who couldn't afford it. The problem is it didn't change the delivery model. And so there wasn't enough places for people to go and it became much more expensive because the delivery model that was present when this came about. And so now we're arguing about Obamacare, instead we should be arguing about, "Yes, everybody should get healthcare, let's change the delivery model so we can all afford that."

John:

So this question has come up, what we're talking about now, in several podcasts that I've done on Health Care Rounds. And the question that I always come back to, does that mean that the only

successful health systems are going to be the ones where they've got an insurance product, so they have to manage risk, i.e., And I'm thinking of Kaiser, Geisinger, Intermountain, where they've got substantial numbers of people that they're covering so that they're seeing the whole spectrum, right? That if you don't have that, or even if you don't have a Medicare Advantage product, maybe you're a lot more, the right word, myopic in your decision-making. Whereas when you have the fully-integrated system with the insurance, with the payer arm, it seems like to me, that that may be the only way to solve the problem that you're addressing. I could be wrong. Are there other ways, because I'd like to hear your thoughts?

Tom:

Yes, I challenge that because that says that in order to be successful, you have to be in control of all sides of, both the economics and the delivery and the patient procurement. And that's not true. At least I don't believe it's true. I think what you have to do first is say, "We're going to do what's best for the patient. And we're going to be patient-centric about what we do." And that not only entails that you put things in place to keep the patient well and healthy, but also you put access there so that they can reach doctors when they need to reach doctors, not a week from now or six months from now. But you start to change your infrastructure from that standpoint. A, your fee-for-service business will improve markedly because everybody will love you.

Tom:

And so they'll want to come to you. So that increases your revenue. B, you build a primary care organization, either with nurse practitioners and physicians, but in teams and you use virtual, like we're doing now because of the pandemic, telemedicine, and you increase the ability to have access to the primary care organization. And once you do that, you increase your volume because people will love you. And if you increase your volume, it floats all boats. So you don't have to own the delivery model, you have to get the data the insurance model. But you have to get the data from the insurance models so that you can continue to learn and get better, but you do have to change your delivery methodology and your delivery values. So instead of saying, "Okay, we're going to get more cardiologists and more MRIs and more neurosurgeons, because that's what drives revenue."

Tom:

It does in a fee-for-service world, sometimes less so than it used to, but that's myopic. What you want to say is, "We want..." I'll give you an example. One of my favorite movies of all time was Moneyball. And in Moneyball, Peter Brand went to Billy Beane and said, "Owners got it all wrong. They think they're buying players, and people hit home runs, and that's what is going to make them successful. What they really want to do is they want to buy wins. The more we win, the more successful we are. And in order to win, you have to have runs. In order to have runs, you have to have runners." And that's what evolved into all the new baseballs that is today.

Tom:

In health care, you don't need to have high-priced specialists like the home run hitters. You don't need to have all the equipment in the world. What you need to do is patients. And how do you get patients? You get patients through access. And how you create access? You get a strong primary care and a strong workflow and strong processes that do that. And then you do a good job taking care of those patients. Those would be the systems that are successful, not because they own everything necessarily, but because their whole delivery model has changed to be patient-centered.

John:

So, is that why Mercy is successful? I mean, I haven't looked at their balance sheet lately-

Tom:

Yeah.

John:

... but I think that most people would agree in our industry that they've done a lot of things right over the years. How would you assess where they are in terms of putting the patient first? And then really what I'm getting at is, if they're not a customer now, how would you take this technology and go to Mercy and say, "My old employer, this is something that you need and here's why"?

Tom:

Sure. Yeah. So first off, Mercy struggles like every other health system struggles, particularly not-for-profits because decisions are made by committee, and decisions are made slowly. So they have not been able to... They are successful. They have not been able to make the full transition yet, and hopefully they will. I think Kaiser is a better example of success in making the transition. We are at Mercy at the present time, and we're doing a three-month pilot for them at our costs. And we put the fall prevention in beds on a neuro floor. And in three months, what was normally about 20 falls or so a month, we have had two. And those two were because one, they didn't turn the machine on. I don't think that's the technology, or AI problem. And B is, they were unable to get there in 60 seconds.

Tom:

So maybe there was one fall in three months. We think as the nurses began to trust this type of technology, you get this falls down to zero, unless you have a real agitated patient that needs to be a sitter to be there because they're jumping out of bed every five minutes. So we think that we will put the technology in if there's someone out there that's interested, we'll put it in for free so that you can try it, see how it works, because we're very convinced and we have the results to show it, that we know we can decrease your falls. We think we can decrease it down to zero, but we know we can decrease it significantly.

John:

If you had to estimate dollar wise, what does that mean for them to, what is it, 240 falls a year, go down to zero or to five, what does that mean for them economically?

Tom:

So we calculate the ROI based on just data that's out there generically. And it's about a 30:1 payback. You got to understand that the machine that we put in, and the technology we put in, costs less than 30 cents an hour. So if you compare that to sitting, and you compare that to virtual sitting and you compare that to all other technology, it's significantly cheaper and it gives back that 30:1 payback. And secondly, because of what I've learned through Virtual, we've put other things in it. You can virtualize a room, you can have a video visit. If you get an alert on the phone, you can actually hit an app on the phone and it shows you the patient, you can see the patient, you can talk to the patient, you can do a consult.

Tom:

So it basically virtualizes the room. It connects with that card that I talked about, that vital sign card. So you can actually monitor patients 24/7 with ICU technology being untethered, and it goes through that. So that's what we're creating is an ecosystem that allows the use of artificial intelligence across the acute setting, the post-acute setting in the home, to be able to gather data from the patients through technology, use that data to have actionable alerts, and also form the relationship through the whole telemedicine virtual visit piece.

John:

Tom, this has been fascinating. I got to ask you though, last question is what's next? What's next for VirtuSense, and what you see on the horizon for AI?

Tom:

Yes. So two things. One is we're moving into the home, as we talked about, particularly on the at-risk patients, but later it will be like having a security system be your health security system so to speak. But as far as AI is concerned, I think that AI is extremely important, but it also has to be given respect. And what I mean by that is, AI is not a replacement for physicians, it's not a replacement for nurses, it's not a replacement for not only the art of medicine, but that decision-making process. But what it is, it's the ability to use sensors to collect information to give you actionable data, and then the decisions can be made, and it can allow for that communication to provide people access when they physically can't be there. So it decreases and destroys those geographic limitations.

John:

So we're not going to find ourselves in some Terminator situation?

Tom:

No. We both laugh, but honestly, that I can't predict because I've seen human beings screw up almost everything at some point in time. So it is our responsibilities as leaders, yourself and myself and others, as physicians to make sure this is for patient care, not necessarily to drive revenue, not necessarily to make people wealthy and lazy by not thinking. And we have to be constantly vigilant that it doesn't take over.

John:

There's an ethical responsibility there in other words?

Tom:

Very well said.

Speaker 1:

This AI stuff is really, it's amazing. And I can see... All you have to do, it's like one of those things, when we show somebody our work, they say, "Sign me up." And we do really good work, I will say that. But it's one of those things where you're doing what you're doing at Mercy, you're going to be successful no matter where you go, because you're going to be able to demonstrate that the 30:1 ROI, and the better patient care. And we all know why we don't want people to fall, because a lot of times that's the last thing that happens before the sequence of events and they die. So, yeah, it's cool stuff.

Tom:

It is really cool stuff. And to your point, and I know your profession and company does the same thing, and that's it makes things better. And it gives people intelligence that they can then act better and make impact better. So we're very much on the same par.

John:

Yeah. I hadn't thought of it that way. Well, Tom, this has been great. Maybe we'll come back in a year or so, and see how things have progressed. The technology is fascinating. I'm excited for you, that you're able to retire and come back and do something fun and innovative. So hats off to you for that as well.

Tom:

And I appreciate that. It's truly been a blast and it is a lot of fun. And hopefully it'll keep me young and not stale.

John:

Great. Well, stay in touch.

Tom:

All right. You bet you. Thanks.

John:

Thanks again.

Kim Ascitutto:

From all of us at Darwin Research Group, thanks for listening. Health Care Rounds is produced and engineered by me, Kim Ascitutto. Theme music by John Marchica. Darwin Research Group provides advanced market intelligence and in-depth customer insights to healthcare executives. Our strategic focus is on healthcare delivery systems and the global shift toward value-based care. Find us at darwinresearch.com. See you next round!