HEALTHCARE INDUSTRY GROUP

What's Your Moonshot?

A Podcast Series Where World-Class Healthcare Leaders Seek To Solve Big Problems

The Future of Orthopaedics – Replicating a Proven Model for Providing Affordable, Quality and Effective Care

Transcript

Alex Vaccaro, M.D., Ph.D., MBA: We looked at the model of orthopaedics or let's call it musculoskeletal care, MSK care. We looked at it from a population health perspective, and we said, how can we get evidence-based care within the boundaries or the guardrails of clinical practice guidelines to everybody? Instead of saying, "We're surgeons here, come and treat us." We said, "No, we'll take care of all your MSK needs," and we develop what they call a non-operative operative model, where the vast majority of people with complaints of orthopaedic elements don't have to see a surgeon because they don't need a surgeon and they follow evidence-based guidelines. We developed a technology platform that provided access care, non-operative medicinal treatment, injections, and then the last resort is injections and we emulated that model throughout the system at a cost of care, affordable to everybody.

Ken Barrette: We're proud to have Dr. Alex Vaccaro, Chairman and President of Rothman Orthopaedic Institute with us today. Over the last three years my colleague Steve Boyd and myself have had the pleasure of working with Rothman on various strategic initiatives and growth initiatives.

We find Rothman Orthopaedic to be a unique leader in terms of comprehensive musculoskeletal care, delivered with academic excellence and quality that is unparallel when benchmarked. They're a top 15 orthopedic provider nationally. And they've continued to have an interesting strategy in a world that has shifted from outpatient and ambulatory work, with a lot of investment capital in creating ortho supergroups to them remaining independent, extremely financially sound in partnering with health systems in various geographies to create a coordinated system of care that has proven to drive value and quality for various payers and constituencies within the community. Steve, would you like to make a few comments about how interesting their economic model is relative to other orthopedic supergroups.

Steve Boyd: So, as Ken said, that unique mix of academic focus, comprehensive care, has over the years really driven I'd call it, outsized and above average margin and operating performance across their practices, to where it allows the physicians to be continually engaged, and to continue to grow the full suite of ancillaries and drive outside performance to where their leverage remains low and the business generates a significant level of free cash flow to sustain future, investment and growth.

Ken: I'd like to hand it over to Dr, Larry Kaiser and Dr David Shulkin to further introduce Dr. Vaccaro and this moonshot series.

Larry Kaiser, M.D., FACS: Welcome to A&M's, *What's Your Moonshot?* Podcast. My name's Larry Kaiser, I'm Managing Director in Alvarez & Marsal's Healthcare Industry Group. I'm here today with my co-host the honorable secretary, Dr. David Shulkin. David, it's my pleasure to welcome Dr. Alex Vaccaro to the podcast. Dr. Vaccaro leads Rothman

Orthopaedics, serving as president since 2014. Founded by the late entrepreneur iconoclast and pioneer, Richard Rothman, who in the earliest days benefited from the largest of Walter Annenberg, Rothman Orthopaedics is the largest full-service orthopaedic practice in the country with more than 40 offices in 4 states offering both surgical and non-operative services.

The organization also partners with sports teams at all levels to provide treatment to athletes on and off the field. Dr. Vaccaro also serves as the Richard H Rothman Professor and Chairman of the Department of Orthopaedic Surgery. In addition to being Professor of Neurosurgery at the Thomas Jefferson University in Philadelphia. Alex, we're extremely pleased that you've taken time out of your incredibly busy schedule to speak with us today.

David Shulkin, M.D.: Alex, again, both Larry and I are appreciative. I think as Larry was saying, I would say that you're probably the busiest guy that's out there in healthcare. You're doing many jobs, you're traveling around the country to share your knowledge and so it's great to be with you. I think that Rothman has always been a name that's been synonymous with chartering new territory and really creating new models of care and under your leadership, Rothman has been having a tremendous amount of growth and entering into new markets.

Can you tell us a little bit about what the strategy is in terms of continued growth in an area that just seems like it's increasingly getting competitive with other entrants and also all these disruptors that are out there in the musculoskeletal space?

Alex: Well, David, you're the perfect guy to ask that question because you and I have met before. I think the one thing we were lacking is America's access to quality healthcare. I have to complement Obamacare for giving everyone insurance. I don't think it gave everyone access. I have to compliment your work efforts at the VA in making sure the vets had the appropriate care, so we looked at the model of orthopaedics, where let's call it musculoskeletal care, MSK care and we looked at it from a population health perspective and we said, how can we get evidence-based care within the boundaries or the guardrails of clinical practice guidelines to everybody?

Instead of saying, "We're surgeons here, come and treat us." We said, "No, we'll take care of all your MSK needs," and we develop what they call a non-operative operative model, where the vast majority of people with complaints of orthopaedic elements don't have to see a surgeon because they don't need a surgeon and they follow evidence-based guidelines. We developed a technology platform that provided access care, non-operative medicinal treatment, injections, and then the last resort is injections and we emulated that model throughout the system at a cost of care, affordable to everybody.

Then we partnered with healthcare systems and we said, "Listen, there's the social determinants of health that we can affect individually, but collectively, we can." We partnered with Jefferson in the Philadelphia region. We partnered with NYU in the New York region. We partnered with Meridian Healthcare up in Bergen County. We partnered with Aabon Health in Florida, and now we're partner with Swedish Healthcare in Seattle. We said, "Listen, help us bring that care to undercapitalized markets, where they just don't have the appropriate healthcare."

That's what we've been able to do overtime. It's been working well and we're following your footsteps and the footsteps of Larry at Temple Medical School-- Larry brought evidence-based medicine to Temple and really transformed the care there at Temple.

Larry: Alex, you and your colleagues have always been committed to the highest quality care and Rothman is known for quality. In addition to valuing affordability, you and your

colleagues initially participated in the CMS BPCI project, but ultimately opted to drop out. If not bundled payments, what's the group doing to keep costs under control, and do you participate in any full risk plans?

Alex: Okay, so that's a great question, Larry. We participated in 54 different bundles and I thought the BPCI was great. BBCI advanced was great, but remember, it's designed as a race to the bottom. It doesn't say right patient right time, right doctor right place. It says, cut cost, cut cost, cut cost, cut cost, cut cost, you're doing a great job. Now, you've cut so much cost. Now, you're going to lose money if you participate, so you can't, if you run an efficient model participate in the government program, it doesn't make any sense.

What it does is it used to say, if you look at your collective geographic area, if you provide care at a cost less than the geographic area, you will save money and we'll have a gain-sharing relationship with the provider. It stopped doing that and it kept on comparing yourself to yourself every year. If it cut costs by a dollar, it gave you less than a dollar next year. Cut costs by a dollar again, it paid you less and less until you can't cover your expenses so we're out, but it was a great exercise. It taught us how to look at the things that really increase the cost of care, wasted care, ineffective care, overabundant care.

It allowed us to understand exactly what we were doing right and what we were doing wrong. That's what we did. Now, we're looking at a population per patient per month opportunity. When we look at the MSK spend in say, Pennsylvania, we say that it's X amount of millions of dollars. We say, "well, listen, we think there's about 30% to 40% waste there." We will provide that care for 20% less and we go at risk and we have that risk contracts right now with various health insurance companies.

We make money at it because we cut our care and they don't come back and say, "Well, listen, you've done a great job. We're going to pay less next year." They say, "Thank you very much for showing us and our other members how to cut care," and they continue to reward the provider. Remember, if I have a person who needs surgery today, I'm going to operate today. I'm not going to churn that patient in a non-operative paradigm, that doesn't make any sense. If I have someone who never needs surgery, it doesn't mean eventually if they don't get better, I'm going to give them surgery.

It means, "No, I'm going to take them out of the healthcare machine and put them in a home maintenance program where they'll get better." I'm going to say, "Listen, we know this care is not effective, we're not going to waste our time." I'll talk about the most controversial topic. Stem cells. If you look at stem cells and you see that it's not approved by the FDA, orthopaedic clinics around the country are saying, "Okay, come to my clinic, it'll cost $5,000 to $7,000." We don't do that at the Rothman Institute.

We say, "Listen, we don't mind getting into clinical studies at trial, innovative techniques that have not been proven," but if we do look at it, we disclose it to a patient, we take whatever money's received, we reinvest into clinical studies so we see if it's effective. If it's not effective, we stop doing it. That's the only way to go forward in medicine, we have to innovate, but we have to also understand to study what we do to make sure it's effective.

David: Alex, that makes so much sense. I think you just gave our listeners a primer on working with the government in some of these programs, and the reason why you need to be out in front of the market, the way that you are at Rothman. One of the things that you mentioned was that you partner with health systems, and that often seems like a strange bedfellow because the hospitals, of course, are focused largely on their inpatient care.

Yet, Rothman has a strategy of trying to keep care out of the hospital where it can and so you've worked on things like same-day spine surgery and same-day arthroplasties joint

replacements. What percentage of your cases are now being done in ambulatory surgery centers and outside the hospital?

Alex: Sure. Today, 70% of orthopaedic care can be done outside of a tertiary, quaternary surgical center. If you look at the movement, now, 70% of graduates are going to work for a healthcare system, the university where hospitals system. I think that is the wrong thing to do. I think independent multi-specialty or single-specialty groups are the future in an outpatient setting and use our hospitals for those that need tertiary care, quaternary care for an orthopaedic surgeon, complicated hip replacements, revision hip replacements, scoliosis surgery, tumor, infections. They have to be in a hospital, but simple lumbar decompression, simple discectomies-- I'm a spine surgeon so I'll speak from a spine perspective, can be done as an outpatient. Now, the cost of care is more expensive in a hospital. It doesn't make any sense so the hospital systems that will survive were those that will JV or partner with independent physicians to work in outside ambulatory surgical centers and incentivize all the stakeholders to invest in outpatient surgery. You can safely use it today. 70% of all orthopaedic procedures are outpatient.

We have to study, that's what we have to do. We have to study how we can make sure care is safe as an outpatient, so what I do is I study respiratory problems, chronic coughs. I study the amount of pain medication, how to give people pain relief that's not a narcotic exposure which decreases the respiratory drive of the patient. I look at all that and we can do it. I applauded the government saying we're taking all these cases off inpatient list, but they did it too quickly and we didn't study it. We weren't ready for it.

Of course, all the private insurances jumped on board so even though CMS has reversed itself, all the private insurances were demanding that we take our joint orthopaedic patients, outpatient, and we're saying slow down a little bit. We will, once we know it's safe. It's all about patient safety. The center of the universe is the patient and we have to make sure we respect that.

David: Alex, thanks for that. I think that's a great way to look at things. I did want to follow up with one of the ways that you started out the answer to that last question. That was, you said, look, 70% of graduates are becoming employees of hospitals and health systems and you felt that that wasn't necessarily a healthy thing that you felt that the future's going to be in independent specialty groups. I wonder how you feel about payers who are trying to acquire specialty groups like Rothman.

You may be too big to be acquired, and also how you feel about private equity entering into the single specialty market and essentially acquiring physician groups.

Alex: Thank you for making this a controversy podcast, which I love by the way. I look at the business model of private equity of insurance companies that want to go vertical in terms of their business model. I say to myself, "Well, that's fine in dandy. Are they doing it to decrease the cost of care? Were they doing it to profit?" If they're doing it to profit, where does the money come from? It comes off the back of patients.

I call it the 1980 private equity move, where they arbitraged a stock value over 30 years so they gave a boatload of money to a physician and the physician was like, "Wow, this is a lot of money," but then you paid it back and you had to service your own buy-in by 30% to the debt markets. It didn't make any sense. Now, they have the three bites of an apple five-year acquisition plan, private equity. It doesn't make any sense because doctors still have to service that debt. They're not giving you a dollar for free.

They're giving you a dollar so they can make 45% on your dollar each year going forward. I say that to every orthopaedic surgeon, if they're capitalizing you because you can build

outpatient ambulatory surgical centers, if you can scale certain things, that makes a lot of sense, but how do they get paid? They get paid by taking the profit off the top so I'm not a big fan. Now, there's other models where you can bring in outside money. Where can you bring in outside money?

From the debt markets, from hospital partners, raising money yourself, or you can use private equity in a different model where they don't own the physician group, they don't ask for a scrape. The term scrape for the people out there that don't understand, scrape is if I make a dollar, I joined it into private equity, 30% of the money I make every year, I have to give back to the private equity. That's how they pay for the amount of money they give you upfront.

If they come up with another model that doesn't scrape from the physician that profits off of economies of scale because you've dropped a cost of care, tremendously, almost like a gain sharing, I could see private equity making money in that way. I could see private equity making money as a general partner in an ambulatory surgical center model, where they had carried interest in the general partner performance fee. I could see people making money that respect but making money off the backs of a patient, I don't understand.

Right now, I'm not a fan of private equity, unless the models are changed. I know that's a complicated answer to a complicated question. Now, to--

David: What about the insurance companies that are acquiring?

Alex: It's such a conflict of interest for the payer to own the provider because the payer may just say, "Listen, we're not going to provide those services, so therefore, you can't provide those services because I'm paying you your salary." I really truly believe that the payer has to be separated from a provider. I think there has to be independence for conflict-of-interest rules that you have to represent the interest of the patient. Who really looks out for the patient? It's you and I, you're a physician, Larry's a physician, I'm a physician, we truly lookout for the best interests of a physician.

That doesn't mean all the other stakeholders do not, but we take an oath, the Hippocratic Oath to look out for a patient so we know, I believe what's in the best interest of a patient. In addition to looking out for the best interest, we also have to be frugal, we have to be cost-effective, we have to do what **[unintelligible 00:14:38]** said years ago in CMS. Look at the four different things which have to do to make sure healthcare is effective in the future.

Larry: Alex, you talked a little bit about how the move from inpatient to the outpatient setting in orthopaedics, and it's been fueled a lot by some of the tremendous advances in your specialty, not just the minimally invasive approaches, but robotics, as well as improvements and instrumentation and implants, tell us a little bit how some of these advances have really benefited patient care.

Alex: The first thing is you mentioned minimally invasive, which makes sense but the first thing we needed to do is we needed to make sure that anesthesia was safe. Now, we needed to understand those who do well following general anesthesia that do well on TIVA and other types of local. Then, we had a look at pain management after an invasive procedure. Larry, they got away from the narcotic exposure so now we're using cocktails of Celebrex, Gabapentin, Tylenol, we're staying away. We've engineered anesthesia to a point where we're not depressing the respiratory function so we did that.

On top of that, we added minimally invasive techniques so in spinal surgery, we use robots, we use microscopes, and we use navigation. We realized that we could do a surgery through a small port rather than a large incision, which was fantastic. We also understand

spinal pathologies better. Saying, you don't have to do a big scoliosis surgery. You can make a small little correction and improve the quality of life because we started to use, one of the benefits of Obamacare is allowing everyone to use electronic medical records.

Now, we use big data to identify what patient groups do well, what patient groups do not do well, what patient groups suffer complications. Using registry data that doesn't give us a causation, but associations with adverse outcomes, we've been able to use all that together to come up with paradigms to treat patients more effectively. That's how we pioneered the outpatient movement in orthopaedics, which has been very effective.

David: You have in a very short period of time, talked about an incredible array of the landscape in healthcare. One of the things that we haven't asked you about yet is what you think about all of the new technology besides the clinical technology but in terms of the movement of treating musculoskeletal conditions using telemedicine and using virtual care, virtual physical therapy, virtual postoperative care, remote monitor, what's your feeling about that? Are we headed in the right direction or are you concerned that we're going to miss something by not having that direct physical contact?

Alex: I am the biggest cheerleader for telemedicine. Right now, today, 50% of the people that I do complex spine surgery on, I meet for the first time in the pre-op holding area. I've learned and we published on it extensively how to do a validated physical examination over telemedicine, and also have learned what patient populations do not do well in telemedicine. Let me give you an example who doesn't do well. As a spine surgeon, you're dealing with someone with a spinal deformity. You're looking at their imaging studies. You're talking to them. You're looking at the patient.

You can't see their three-dimensional balance in space, so I can't perceive that. There's certain things that we're learning that we can't do by telemedicine. You have to sit with the patient, you have to hold their hand, you have to understand what their needs and wants are, but we can communicate pretty effectively. When I'm speaking to someone in telemedicine, I actually get deeper into the details because I have their reports open, I have their imaging open, and I'm talking to them directly. I'm having a direct conversation.

I'm not turning my back to I'm looking at an x-ray. I'm not turning my back, dictating into a computer. We've developed great bonds with patients. Now, let me tell you the next benefit of it. This Thursday, I'm the team physician for the Eagle so I have to fly to say Florida to watch us kick Tampa Bay's butt.

David: And also, controversial. You know that. We have a national audience.

Alex: Now, Tom Brady's going to get more aggressive, just like Zeek Elliot killed us in Dallas. I am now going to be able to do office hours when I'm down at Tampa. I could sit back. Now, there's no longer-- I can only do office hours when I'm in town. I could do office hours between cases on holidays when I'm away and I could look at you like I'm looking at you now. I think it's great, I love remote monitoring. Now, orthopaedic surgeons only use remote monitoring to look at outcomes.

Instead of saying, "You have to come back at six weeks, three months, six months." I get a green, red, and yellow. Green means their function is exactly the way that a person who had that type of procedure should be ambulating. Their stride length is perfect. They don't have to come back for an x-ray. If it turns yellow or red, they have to come back sooner so I think it's phenomenal. I'm not talking about glucose monitoring, cardiac rhythms. I'm talking about MSK care so it is definitely the future. Now, how do we preserve that?

We have to go to audio-only telemedicine because our Medicare population doesn't want to look at a video. They don't know how to-- so I think it's so foolish that Congress hasn't passed that rule to say, audio-only. We have to reimburse doctors like right now, I don't get paid for tele-- I think IBC locally said, "We're not paying anymore." I think Aetna said, "We're not paying anymore," so I do it for free. I literally do telemedicine for free and I only get paid when I do the surgical procedure. We have to stop the fullness of insurance companies that say, "We're not going to allow you to operate unless you do an in-person physical examination," because 70% of the time, a broken bone on a telemedicine is a broken bone. You don't have to be in your office to say, "By the way, I see the bones stick out to your skin," so you don't need that either. It is the future. I love it and I support it 100%.

Larry: Well, Alex, first of all again, thank you for taking the time out of your schedule to speak with us today. I think what it really comes down to is the Rothman Institute has developed up platform for the care of musculoskeletal disease, if you will, which includes everything. That really is a model that needs to be emulated in major locations. You're doing that by expanding this platform to areas really across the country. I think it's been well received because of the fact you bring in incredibly high quality, and you do it efficiently and cost-effectively.

That to me is what really is important. As you have stressed throughout this talk, it is all about the patient. What we can do for the patient whether it's minimally invasive, whether it's controlling the amount of narcotics that we use, whether it's monitoring the patient at home, telemedicine, all of those things benefit the patient and that's really what's important.

Alex: I agree, Larry, 100%

David: I just want to follow up. I think Larry did a great summary, but give us a sense as we close out here, Alex. When you go around and speak to orthopaedic surgeons around the country, where is the mindset of the orthopaedic surgeon? Are they thinking about this like you or are they still in a much more traditional point of view about what orthopaedic surgery musculoskeletal care should look like?

Alex: There's many different thought processes. What's gone on now, Dave, is a fear that the economics of healthcare is changing so rapidly. Another deal was made in Congress. A cost neutrality rule, they're cutting MSK care by 9.6%. They're cutting total joint replacement by 5.4%. We're fighting Congress on these foolish budget neutrality rules. They're so panicked and as a result, what do people do when they're panicked and they want to continue to keep their doors open?

They make deals with people. They make deals with healthcare systems. They make deals with hospital centers. They make deals with private equity. That's where their mind is now. They should be focusing on when you and I just talked about. How can I provide cost-effective efficient safe care to our patient population? We're not spending enough money investing in the technologies that Larry and I just talked about. We're spending so much time saying we have to advocate the Congress to stop this foolishness that we continue caring for patients in an economic way.

That's where we are right now. There's a lot of panic, and that's why you're seeing. There's an article that came out two days ago that said that 70% of it private equity is coming in and capitalizing in that fear, which is not the thing to do today. That is foolish. I don't think-- and I have nothing against joining the University Healthcare System but I think we should think more independently because we could be more innovative.

If I work for the man in a healthcare system, I can't be independently innovative because I work for the man and he's telling me what I got to do every day. I have to be independent so that's why I think we need to be in the future.

David: Fantastic. Thank you for spending the time with us today.

Ken: So, listening to Dr. Vaccaro, you know, a couple of interesting things come to light, from our prior strategy and performance work with Rothman. One, Dr. Vaccaro is the preeminent leader in spine surgery, recognized globally. He is surrounded by several top-ranked physicians and surgeons within the musculoskeletal care space.

And Rothman consistently outperforms and creates tremendous value and quality within the communities that they serve. What we find interesting about Rothman is they've also moved closer to the premium dollar, they've been able to coordinate care between the health system, their offices, their inventory surgery centers in the broader ancillary support services, and thus have shown in several community-based settings that they can provide a better economic, high quality care base that over time actually saves a good amount of money on the healthcare dollar. We also recognize from Dr. Vaccaro, that their focus on the patient is exceptional and consistently rank as one of the highest when it comes to patient satisfaction and service delivery.

Steve, any other thoughts as you listened to Dr. Vaccaro as he thinks about Rothman and Rothman's place in the orthopaedic community?

Steve: I think as you listen to Dr. Vaccaro, it'll be interesting to see the pride that he takes in what the team at Rothman has built, the uniqueness of the model and the fact that they feel that they are from both a clinical and an academic perspective, a preeminent ortho group nationally and can drive improved outcomes. Not only does it provide the traditional support services that you would expect from a management services organization but it also provides a bunch of the clinical know how, and the academic support that's required and allows the organization the visibility and the support to drive the performance that it expects and generates meaningful cash flow on its own for the organization.