

Company Name: AtriCure, Inc. (ATRC)
Event: 22nd Annual Needham Virtual Healthcare Conference
Date: April 17, 2023

<<Mike Matson, Analyst, Needham & Co.>>

Good afternoon. Thanks for joining us at the 22nd Annual Needham Healthcare Conference. I'm Mike Matson and I lead the med-tech and diagnostics equity research team at Needham and Company. I'm please to introduce AtriCure's CEO, Mike Carrel; and CFO, Angie Wirick. Instead of a standard presentation, we're going to do a fireside chat or Q&A session. If you have any questions you would like to ask, you can submit them electronically through the Needham website, sorry, conference website, or feel free to email them to me at mmatson@needhamco.com and I'll do my best to fit them in.

So with that we're just going to move straight into the questions. I guess I'll start with one, just, I don't know what you're able to really say about trends in the first quarter. But given just the kind of spotty procedure growth rates we've seen across the industry quarter-to-quarter given staffing and COVID infections and respiratory infections and things like that. I was just wondering if you could comment at all on what you've seen in the first quarter. Is – there's some signs from our perspective that procedure growth has been particularly strong as we enter the new year, but I don't know if you were seeing that or able to comment on that at all.

<<Michael H. Carrel, President and Chief Executive Officer>>

That's a fair question. I don't – what we're seeing is very normalized procedure volume at this point in time. I think the cardiac surgery is kind of back to where it was. It's in a good place. Staffing is in a good place relative to that. It's not necessarily getting better, but it's also – it's not getting worse at this point in time. There's not a lot of pressure on the system from that standpoint. We hear about it a lot less. Cases are happening. There's not like big waiting lists or backlogs or anything along those lines. So I'd say that, overall we're seeing it to be relatively stable, which in our mind is a really good thing because if you think about every one of our underlying markets, it's all about penetration and it's all about kind of that growth. So on our open market going from 30%, that are getting treated today, we still have 70% to go. So if the margin is still stable, we feel like we've got a lot of room to grow in that area, same thing in thoracotomies with Cryo Nerve Block, et cetera.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then I'll just start out with one on the pipeline. I think you said at a recent investor conference that you had – you're planning six new products over the next 18 months. I don't know if you're able to talk about all of those or any of those. Can you shed any light on, on what you're planning to do or launch over the next 12, 18 months?

<<Michael H. Carrel, President and Chief Executive Officer>>

Sure. We're excited about the pipeline that we've got in front of us. The engineering team has just been working and doing some great work on this front. We just rolled out the Epi-Sense ST product, which just came out recently, which is a more kind of flexible probe to make it easier for them to get it to tighter areas and kind of maneuverability is actually really key on that. So it's ST for steerable and we're getting lots of really good feedback. That's beginning to rollout as we speak. Right now we've got Cryo Nerve Block. We're looking at kind of adding to what the sheath to make it just easier to kind of put pressure on and also make sure you're avoiding any structures from a safety standpoint, in addition to that looking at alternate sizes for the ball at the end. These are all things that we're getting asked for from our customers.

They sound small, but actually they're actually really big moves and they're really big pieces of feedback that we actually get from our customers. And then as you round out and you look out into 2024, we've got a new clamp specifically for heel – for IST that we anticipate rolling out at the end of next year. We've got a new clip that'll be coming out at the end of next year as well and – which is going to be an even smaller profile and less invasive clip. Overall, it will originally come out on the open platform and eventually come out onto our minimally invasive platform as well. So we've got lots of new products that are coming out and excited about each, each one of the ones I just mentioned. In addition to that, we've got a couple of I'll call it EP related products for access. And so we've got two different access pieces to make it easier to do the center heart and any kind of epicardial access that EPs might want. We've got two different products that are actually going to enable that and make that a lot easier to do.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. All right and moving on to your open-heart ablation business. So, I was wondering if we could just start out by giving us an update on where you think the prevalence and penetration is for – within the CABG, aortic and mitral procedures. In other words of those procedures that are getting done, what portion of them have AF? And then of that subgroup, how many of them do you think are getting ablation currently?

<<Michael H. Carrel, President and Chief Executive Officer>>

So in the mitral valve area, you've got about 70% of the – 60% to 70% of patients have AF and about 60% to 70% of those patients are getting treated today. So that's the highest percentage. Typically one of the reasons is because we're already doing a lot of the work just to get access to the mitral valve by opening up the atrium to actually do the work you've got to do on the mitral valve. So they tend to be more technically proficient surgeons that are doing that. On the aortic side, it's in about what is it 30% of the patients or so and it's about 25% penetrated today. So it's about 30% or so prevalence and then you've got about 25% treatments. So 75% are not getting treated today. And in CABG that tends to be obviously the largest number overall. And it's in about any numbers that you look at 15% to 20% or so of the patients, but it's less than 10% that are actually getting treated.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, that's helpful. Let's kind of set the stage for EnCompass, which is the next thing I want to talk about. So you launched EnCompass Clamp. I think it was about a year ago, April of 2022. The product has been driving some really strong growth in the open-heart business. Can you just remind us of the benefits of EnCompass versus the prior offering and talk about why it's seeing such strong growth?

<<Michael H. Carrel, President and Chief Executive Officer>>

So it's not really – it's not competitive against what we're trying to do is there are really two big issues in cardiac surgery around treating Afib and why that number is so low in terms of why – why aren't they treating, that's a natural question, the guidelines that you should treat, so why aren't you treating. Two things, one technical – technically it's difficult to get behind the pulmonary veins. So it's just a technically difficult thing to do and a lot of surgeons who, especially CABG surgeons, are not comfortable or used to doing that in their daily practice. So we needed to make something that was really fast and easy for them to use. And the EnCompass Clamp was basically built so that you could go through two of the sinuses that you've got around your heart, your transverse and oblique sinus and you kind of place it in there and actually get a full ablation of the left side of the heart with it.

It basically reduced the time from about 30 minutes down to about 10. So you got savings in time. We weren't really going after savings in time, we were going after ease of use, but on top of that surgeons that were otherwise having difficulty getting around the veins, now that they could use this product and do it through those oblique sinus, the sinuses. It's so much easier for them to do. And so we've overcome that technical barrier. The second barrier is really cost, which is, is there reimbursement, what reimbursement looks like. And actually in October right around the time that we started to launch this product, you also saw a benefit because CABG got an extra \$8,000 to \$12,000 per procedure. So they kind of came together at the same time and going after that same market, which is how do you get a surgeon that's doing nothing today to do something to help that patient out and actually add some ablation and EnCompass Clamp makes it a lot easier to do.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then you're going to start lapping the launch soon. Can the product – can EnCompass continue to be a real growth driver for the open-heart business and allow that business to sustain growth kind of above the normal high single digit growth that you expect there?

<<Michael H. Carrel, President and Chief Executive Officer>>

Angie, do you want to grab that one?

<<Angela L. Wirick, Chief Financial Officer>>

Yes, I think of the near-term, Mike, that's a reasonable expectation. I think when we talk about launching the lapping the launch, one of the things we want to make sure is to set the right

expectations that 20 plus percent that you saw in the first year of launch is probably not a good sustainable growth rate for the open-heart business that you'll start to see that receipt a bit. But given the strength of what we've seen from the early launch and the belief in this product, I think it would tell you, look in the near-term we do think that the open-heart growth rate can come up a bit from. We used to say, this is a high single-digit growth franchise. The market itself is not growing. This is all about penetration. But I think with this new clamp, this new technology, it would tell us there is a good reason to believe that the growth rates in the near-term go up a bit.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. And I mean just to be clear you're – in that – the EnCompass is kind of helping the growth in two ways, right? One is pricing because it's a higher priced product. And two, it's just driving more adoption, more market penetration by making the procedure easier to do. And both of those I understand you'll start lapping it, but the pricing benefit would only kind of go away if you kind of fully cannibalize the old version, right, as long as you still got room to go. So it seems like you should still continue to see benefit from price and volume even in the second year of the launch, correct?

<<Angela L. Wirick, Chief Financial Officer>>

Yes, I think you...

<<Mike Matson, Analyst, Needham & Co.>>

Maybe admittedly lower than the first year, but...

<<Angela L. Wirick, Chief Financial Officer>>

Yes, you saw a bit of that when we introduced the Flex·V AtriClip version, which was –look you saw an immediate pricing impact. In that case, there was a bit more of a conversion from the Legacy clips over to Flex V, but for a number of years, call it 24 months to 36 months, pricing was still playing an impact. Once you get to kind of the scale, you start to see that the majority of the revenue volume is in the newer product, the higher price – pricing just becomes less of the story. It really is more about volume.

<<Mike Matson, Analyst, Needham & Co.>>

Yes. Okay. All right. And then just in open-heart, I mean I think you're only competitor there is Medtronic, but I haven't really heard much about Medtronic's business there lately. And I think they have sort of retrenched a bit. Are they still out there competing with you? Or have they sort of given up on this market?

<<Michael H. Carrel, President and Chief Executive Officer>>

They're still out there and we definitely see them more so in Asia and in Europe. We do see them in the U.S. as well. They've still got the other products. They've actually got a clinical trial that

they're running right now. And much like what we've seen in the left atrial appendage market, we think it's good to have competitors. It's good to have people because otherwise we're the ones creating the whole market. So they're definitely out there. They don't market as aggressively as we do. They don't do as much training. There is not as much focus on that per se, but they're definitely out there in the market.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. And you did mention the trial, so I wanted to ask about that. Terminate AF I think is what it's called.

<<Michael H. Carrel, President and Chief Executive Officer>>

Yes.

<<Mike Matson, Analyst, Needham & Co.>>

I mean I know it's a Medtronic trial, but just curious if you've heard anything about it and thoughts on – if they were able to – if the trial is successful and they were able to get the kind of AF labeling for their open-heart products, would that – how would that affect AtriCure if at all?

<<Michael H. Carrel, President and Chief Executive Officer>>

I kind of getting back to the way I was talking about the left atrial appendage. As Amulets come into the market with Watchman, what you've seen is everybody has continued to grow. And I think the same thing would happen. If Medtronic a big marketing and they've got that backing there that comes into the market to kind of help us build this market, we're still less than 30% penetrated at this point in time, we think that kind of all bolts would rise if that happened. So we view it as a positive that somebody else is investing in the space and putting the money behind doing that. And I don't know much about the trial at this point, like I don't know what the results look like. I understand they're still enrolling in the trial, but I don't know where they stand in terms of how they're going to finish enrollment and when the readouts are from that standpoint.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. I understand. All right. I wanted to move on to the pain management business. So your cryoSPHERE products turned into a homerun for the company. It's had tremendously strong growth. I think it grew 77% globally last year. Can you just give us an overview of the product, what it does and why it's been so successful for the folks out there that aren't familiar with it?

<<Michael H. Carrel, President and Chief Executive Officer>>

Yes, sure. So, I mean, what the – it's called Cryo Nerve Block and the cryoSPHERE is the name of the product. The therapy is Cryo Nerve Block and basically – and it is what it says. It's using cryo to basically ablate and block the nerves. So you're blocking the pain signals from going when somebody is going through a thoracotomy. So when you go through a thoracotomy, you

basically spread the ribs. You've got – every one of us have the intercostal nerves that go across the ribs. Even if you just disrupt them by moving them, that's incredibly painful. So think about getting punched in the rib. It's incredibly painful and that nerves get angry. And so it – one of the things about having to go through a thoracotomy, which are typically used for lung resections in cancer patients, it's incredibly painful and the recovery is painful coming out of that.

So what a Cryo Nerve Block does is it literally ablates it and freezes the nerve and kills everything on the inside temporarily, and then it regenerates, it comes back. And by doing that, you're basically blocking the pain signals for a period of about four to eight weeks, so that you can actually feel little to no pain in that area that – otherwise you felt a lot of pain before. And so it's the – one of the reasons it's had such great uptake is that you see that directly after the surgery. So whereas somebody used to go into the ICU afterwards, they'd be in pain, they didn't want to move, they couldn't blow into the spirometer. Now they get up, you see them they're reading the newspaper, they're blowing in the spirometer, they're getting really good results, that means they're recovering more quickly, they're getting their lung function back more quickly. That is all really good. So they see it immediately, they see these great benefits. That's why it's taken off and done so well, even better than we had expected upfront.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. And then can you talk about the market opportunity in thoracotomy and where you think penetration currently stands in that particular procedure?

<<Michael H. Carrel, President and Chief Executive Officer>>

There is about 150 or so thousand thoracotomies every year in the United States that break up into a lot of different areas. But like I mentioned a lot for cancer patients, there's something called pectus excavatum, where they basically have a sunken chest as an example of one or trauma cases. That number is, we're just over 10% or so penetrated at this point in time. So we've still got a long ways to go just in thoracotomy and we've just started to actually rollout in a very small amount, but started to rollout at several sites around the country at about 20 or so and – for sternotomy, so as – and that's about 250 or so thousand patients that undergoes sternotomies in the U.S. every year. And it is available globally. So the product is available in Europe and Australia as well.

<<Michael H. Carrel, President and Chief Executive Officer>>

Okay. And I was going to get to sternotomy, but since you brought it up, I guess, what – what do you – what's different, I guess – I mean, I understand what the difference is with the procedure, but in terms of marketing the product or the product itself, are there differences in terms of, or is it just a matter of walking in to having your reps walk into sternotomy cases and pitch the doctor on using the existing device in those cases?

<<Michael H. Carrel, President and Chief Executive Officer>>

Sternotomy is probably going to be a little bit longer call than the thoracotomy is our anticipation. There is more pain when you're coming in through the side here. There is more disruption to the nerve, but you are getting disruption to the nerve when you're doing a thoracotomy here or sternotomy. And when you do that, you are disrupting the nerve endings and so you do want to do this ablation. There is some pain relief for sure, but there's also a lot – it's a lot more complicated procedure. There's pain from other areas, chest tubes, et cetera, when you're undergoing a sternotomy. So the benefit may appear to be maybe not quite as much even though you're still reducing that pain quite a bit. So I think we're going to take it slowly, listen to what the market tells us on that front, not get too far ahead of ourselves, and that's kind of why we're setting low expectations in the short-term. And then I think by the end of the year we'll be able to set reasonable expectations for growth out of it based on the feedback we get this year.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then I think you have a dedicated sales team for the pain management product. So can you maybe talk about that, I don't know if you're willing to give us numbers in terms of where it was at the end of 2022 and where you're expecting for 2023 in terms of expanding it?

<<Michael H. Carrel, President and Chief Executive Officer>>

Angie, do you want to grab that?

<<Angela L. Wirick, Chief Financial Officer>>

Yes, we think we're totally right around 60 at the end of 2022, think about 35 reps or so. We aren't quite yet to a one-to-one between a rep to clinical ratio. And then you also had kind of a smaller management team for that group as well. This is an area where we've said, look, we'll continue to add. We tend to see that reps and clinicals both can be hired and be productive within a pretty short timeframe, call it three to six months. And relative from a cost perspective, they generally are kind of a cheaper resource than we see in both the cardiac and the hybrid teams, which given the momentum we've got in this particular franchise, kind of the overall financial proposition it tells you, look, we're willing to lean in and continue to expand that team.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then what about guidelines? Is there any chance that cryoSPHERE could be included in guidelines eventually? Or would you need more clinical data or something to support that?

<<Michael H. Carrel, President and Chief Executive Officer>>

I think eventually, yes, but I think right now we need a lot more clinical data. There just needs to be a lot more use of it. We're supporting a lot of independent research that's being done in this area, so that data does get produced. We've got a registry that we've put together called the REDUCE registry, where we encourage all of our sites to pull their data so they can kind of write

more papers and get more outcomes off of that. So I think the answer is I'm hopeful, but it's a long way away.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. And then the other aspect, I guess, would be around opioid use. My understanding is correct me if this is wrong, you're not able to really pitch the product as being able to reduce the need for opioids, but is that right? And then what would you have to do to be able to do that? And would it even matter, I guess, to the adoption given to how fast it's already growing?

<<Michael H. Carrel, President and Chief Executive Officer>>

Yes, we can't proactively have a conversation with someone say you can reduce the opioid consumption for your patients using this. What we can say is that the product itself does not use opioids. So it's a non-opioid type product, but we can't say that you're going to be able to reduce those opioid and the consumption of that. I do think there's some benefit there. We do see some of our sites that they're doing studies to show that you can reduce that. I believe that we're trying to figure out how do we want to study it because there's inconsistency across the country and by states relative to how much and how do they protocol out the opioid usage for these patients. And so trying to get something that's ubiquitous across the United States and get a trial that's like that is something that we're studying right now and trying to figure out. And that I do anticipate that we'll probably start or launch some sort of trial probably sometime end of next year will be my guess.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then moving on appendage management. So AtriClip has been another really successful product for AtriCure. Can you give us an update on where you think the penetration is in both open-heart and minimally invasive ablation procedures for AtriClip?

<<Michael H. Carrel, President and Chief Executive Officer>>

Angie, do you want to grab that?

<<Angela L. Wirick, Chief Financial Officer>>

Yes. So in open-heart procedures, we think for a patient that's presenting with pre-op Afib just under 50%, so it's higher than what we're seeing in terms of the penetration on ablation procedures, find that oftentimes the surgeons in there, they may not do the ablation. But they're willing to manage the appendage. We do think and it's probably less than 10%, there's – use in non-Afib patients in the open heart surgery market. So that kind of brings you to the open AtriClip. And then when you think about the minimally invasive or hybrid business, as you know, it's a 100% attachment to any of the legacy TT procedures. Then in CONVERGE, we've seen a nice uptick. I'd say this is an area that's been kind of a pleasant surprise up to around 75%, 80% attachment in CONVERGE procedures today.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. Got it. And then you've really done a good job improving and iterating on AtriClip. I think, Mike, you kind of already answered this with the comment on the upcoming launch. But you said, I just want to confirm, I think end of next year, so end of 2024...

<<Michael H. Carrel, President and Chief Executive Officer>>

Next year.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. And I assume would that come with a price increase as well, or are you kind of pushing the limit there in terms of how much you can drive that up?

<<Michael H. Carrel, President and Chief Executive Officer>>

Yeah, we haven't determined that yet. I think there's still some more work to do from studying the market to figure out what can the market handle from that standpoint. We do typically have some raises on prices just because we are putting a lot of effort to create more value into that product. And there's a reason that we're doing it. So we'll probably have some, but we just haven't determined how much the market can handle at this time.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. Got it. And then there was the LAAOS trial which I think it's been almost two years since that was presented or published. And it showed a significant reduction in strokes with surgical occlusion of LAA. So I don't know if you can separate all the various factors in terms of what's driven the growth, but how big of an impact do you think that's had on the AtriClip business? And that's – do you think that's still a tailwind or has it largely kind of run its course at this point?

<<Michael H. Carrel, President and Chief Executive Officer>>

Yeah, I think that's definitely a conversation, that's a part of it. It's tough to kind of pinpoint, like you said exact amounts that you get from it. But managing the appendage has become more and more important. It's talked about at every congress, whether or not it's a surgical conference or a ACC or at HRS all of the conferences are talking about the need demand is the appendage when you undergo concomitant surgery. And they're speaking from the podium regardless of the discipline. So I'd say that it's definitely had an impact because we do see people treating the appendage a lot more as a result.

<<Mike Matson, Analyst, Needham & Co.>>

Okay.

<<Michael H. Carrel, President and Chief Executive Officer>>

Whether with the AtriClip or some other form like cutting and sewing it or stapling it.

<<Mike Matson, Analyst, Needham & Co.>>

Yeah. Okay. And then you started the LeAAPS trial, I think you had your first patient enrolled in January. I think it's looking at prophylactic use of AtriClip. So can you just talk about the trial design, when we could see results? I know it's a pretty long-term project, but – and then what that could mean for the appendage management business?

<<Michael H. Carrel, President and Chief Executive Officer>>

I mean, to me this is a complete, I mean an overused term game changer for our business. This is opening up a brand new market, which is the prophylactic use of the AtriClip to reduce stroke. That's the goal. And it's designed as 6,500 patients, one to one ratio, half will get a clip, half will not get a clip. These patients do not have Afib. We believe that what you'll see is a significant reduction in stroke in the patient arm that actually has the AtriClip. And we're going to look at them over a five-year period of time and we're going to look at the events rates. So we're – we have 250 sites we're allowed to enroll in, 150 or so in the U.S. and that trial has gone off and been great. We've already started to see a very quick enrollment. We've gotten the sites up and running and on board. We've got all major institutions in the country that are involved in it. I mean, you name a top hospital and they're getting involved in this trial. So it's very exciting. It's building a lot of momentum. People want to know the answer to this question.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then, is it reasonable to assume that just running the LeAAPS trial could drive increased prophylactic use of AtriClip? Obviously, I'm not implying that you guys would be marketing that, but just the fact that it's going to be talked about on the podium, the trial design et cetera. And then on top of that, I imagine there's some fairly high volume surgeons involved with the trial itself that not every patient they're treating is going to be enrolled in the trial. But maybe they put together and say, well, if I'm doing this trial, maybe I should just start doing this every day in my practice.

<<Michael H. Carrel, President and Chief Executive Officer>>

I think you said it well, and we can't promote to that at this point the use of it for stroke reduction. But there might be some awareness that comes with getting involved in the trial to your point, it's tough to pinpoint. There was already prophylactic use. Some people had already come to that conclusion on their own. So it's difficult for me to tease back is some of that related to the trial or not. I mean, the goal of the trial is we want this to be used in every patient around the globe. Every cardiac surgery patient undergoes surgery, we think they should get a AtriClip. And that's kind of that is the goal eventually, but we need clinical data to prove that. And this is obviously a trial that we're making a major investment over a long period of time to get to that point to really change the paradigm for patient care for a long, long time.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. Got it. And then moving on to the minimally invasive ablation. So I think we're also at the two-year mark for the EPi-Sense approval. It was obviously launching the pandemic, but the adoption has been sort of disappointing so far. I know this has been frequently discussed on other conferences and earnings calls, but just curious if you could kind of walk through your perspective on why it's been slow at least initially here?

<<Michael H. Carrel, President and Chief Executive Officer>>

I mean, I'd say first the data has been great and that's been received well. I mean we've seen, when you do a hybrid ablation, you get over a 100% improvement over an 18-month period. It's incredibly durable, it's incredibly safe. That part has never been questioned whatsoever. We had a great start once it launched, but like you said, it launched in the middle of COVID. And so it is an elective procedure. You're asking for a lot of resources to get a program up and running and going. And when Delta and Omicron hit, it definitely stalled the rollouts and the excitement to basically get involved right then. Now coming out of those which happened in the middle of last year, beginning of last year getting that uplift, that's really where the disappointment. I think has kind of come in, which is how do we get them really reengaged.

And so because we saw some drop off from some of those initial ones, not because of the data, just because of time and workflow and we've been working through getting to that point. It was obviously a sore spot in the stock last year quite a bit in terms of people really microfocused on it even though we had beaten raised throughout the year. As we look at it now, we wanted to reset expectations and say, give us this year it's going to be a big win long term because patients benefit a tremendous amount. And we only did like 2,800 cases. I mean we're less than 1% of all catheter ablations at this time. And so we do anticipate that we'll have solid growth out of this as we come out of this year and in the future years. Just we needed this year to kind of get ourselves to a good place and get that workflow kind of coming along.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. Got it. And then I think that just optically from the kind of Wall Street perspective, I mean your minimally invasive business also includes this kind of legacy procedure, I think the AF and I think that's seen some declines. So I think that's maybe like, I know CONVERGE hasn't done as well as people hope. But I think it's also been kind of the growth that it has had, maybe it's been kind of masked by this legacy issue. So can you maybe just talk about kind of the mix there of those two procedures and the degree to which kind of declines in DEEP has maybe covered up some of the growth you've had in CONVERGE?

<<Angela L. Wirick, Chief Financial Officer>>

Yeah, we had a stronger year with DEEP in 2021 kind of coming out of COVID, back to I would say pre-COVID levels. And what we saw progressively each quarter in 2022 is, just a reduction in overall treatment through that therapy. I think this well that this is a therapy that has a very

few number of physicians who treat. It's a small number that accounts for a very big percentage of the overall revenue.

And one of the things that we want to make sure people understood was, look we think that we're kind of bottoming out, so to speak at this \$2.5 million run rate. Don't expect a significant amount of growth. But we also think, some of the volume recession at this point is, it's done based on who is kind of using and treating and continues with those devices, very minimal impact in – they're not trading off the DEEP procedure to do CONVERGE. I mean, there are centers who are doing the DEEP procedure who say believe in the CONVERGE data and believe this area of treatment, but it's not me. It'll be another physician, another cardiac surgeon who will do that procedure. So we do see that. But it's not trading off the patients and not doing DEEP anymore and picking up a CONVERGE program. So minimal uplift in CONVERGE comes at the cost of DEEP.

<<Mike Matson, Analyst, Needham & Co.>>

Yeah, okay. I understand that. But I guess what I was getting at is that the – at least last year, the decline in the DEEP kind of made the overall minimally invasive business maybe look a little worse than...

<<Angela L. Wirick, Chief Financial Officer>>

Correct.

<<Mike Matson, Analyst, Needham & Co.>>

Or made even look like CONVERGE wasn't doing as well.

<<Angela L. Wirick, Chief Financial Officer>>

Correct.

<<Mike Matson, Analyst, Needham & Co.>>

I'm not saying had a great growth, but I mean have you disclosed what the CONVERGE volume growth or dollar growth was last year?

<<Angela L. Wirick, Chief Financial Officer>>

Yeah, throughout the quarters, we were giving kind of quarter-by-quarter what the numbers were. I think you can kind of low teens growth to start the year and that started to decline a bit as we ended the year. Obviously that was offset by declines in the legacy TT business to come to kind of the full MIS growth rate being well below what the corporate average was?

<<Mike Matson, Analyst, Needham & Co.>>

Yeah. Okay. And then, what are you doing to sort of address the challenges with CONVERGE? Have you had to change your sales and marketing approaches at all?

<<Michael H. Carrel, President and Chief Executive Officer>>

We're going to look at everything. We've had to go account by account and look at what stalled each one of those individual accounts. It really does come down to this workflow, both the surgeon working with the EP, the scheduling. And so we've gotten really detailed into those account, how do they build that program. We've got to spend more time with those programs to get it become kind of second nature that when they see these long-standing persistent patients. They have good workflow by which they can basically manage them and refer them to the surgeon to then come back to themselves. That's changed the activities of each and every one of our sales teams. And that's really been the primary change and kind of really hammering that into the teams every day. You've got to stick with them. Don't just go try to open up new sites all the time. Make sure those sites that you're in are sticky and they're going to continue and then you don't leave just after they've done a couple of cases. You've got to really stay in with those and that's been a big part of kind of the focus effort force.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. Got it. And then my final question, on this topic is just around PFA, which has gotten a lot of airtime as well lately. I mean we've seen the data now from Medtronic's PULSED-AF trial and J&J's insPIRE trial. And I think, it seems like the data has been good, but it's mainly showed a safety benefit, maybe a time benefit doesn't seem to be showing the same degree of efficacy benefit that maybe people were hoping for. But what are your thoughts on that data and does that have – what do you think the implications are for CONVERGE? Do you think it would've cannibalized or maybe reduced the need for a CONVERGE like procedure at all?

<<Michael H. Carrel, President and Chief Executive Officer>>

I don't think it really hurts us in any way. I actually think it helps us at the end of the day, I think that the data looks good. I mean it actually the safety rates are incredible when you look at it super positive on the safety side. I think it's really interesting technology. What they're seeing is they're seeing, they get solid success rates. But you're also, it actually confirms what we've seen in all of our studies relative to that epicardial and endocardial working together actually benefits and you get better results when you put the two kind of approaches together. So we think that even with PFA we're going to be very complementary, much like we've been with RF and cryo where we'll basically add to the benefit that they've got and we'll basically be helping them in areas they just can't treat because you still see failures to your point.

And what are you going to do for those failures? Well, what you're going to do is you're going to probably do an epicardial approach and do something around the appendage. And so we've got a clip to put around the appendage and you've got, and it takes the appendage out completely obviously, but also electrically isolates in that area. Then you can do the back wall from an epicardial space that kind of marries with the endocardial space that you get with the PFA or whatever technology that's there. So we view it as it's – it looks promising. I think the safety

rates are fantastic, which is really good for patient care at the end of the day. And you combine that with CONVERGE, I think it's going to be powerful as you kind of look out the years when it does eventually come into the U.S. market.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then just a couple on the international business. So can you give us an overview of the international business which I know you're not going to list out each country, but what are the kind of key markets and regions that you're currently selling in?

<<Angela L. Wirick, Chief Financial Officer>>

I'd say in Europe, I think Germany, the UK, the Netherlands, those continue to, we've seen kind of smaller markets, call it France, Italy, and other places where we've seen some nice traction. But the first three that I mentioned I think are kind of key focus and an area where we still got a lot of room to grow. Outside of Europe, I'd say Japan, China, Australia are three the really that come to mind. Japan has been, it's our number two market in terms of overall revenue behind the U.S. We've seen some really nice growth there in outside of Europe and the U.S. You are talking about a limited number of products available for sale in each one of those markets. But we've seen good traction. But Japan, China and Australia I'd say are kind of the next three areas of focus for us just in terms of the overall potential in therapy adoption.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. And then I wanted to ask specifically about China. So I think a few years ago, you changed distributors there, if I remember correctly. Can you maybe just give us an update on what you're seeing there? And I mean, is there any local competition there for your products or is there – are you really kind of the only product out there in this space?

<<Michael H. Carrel, President and Chief Executive Officer>>

There's a local competitor and then there's Medtronic. So I mean we're – and the market is pretty much a third, a third, a third overall in that marketplace right now. And it's been consistent for many years in that area. As Angie alluded to, we still only have basically just some RF products there. We're trying to get our clip and our cryo into the market. Hopefully that'll happen here not in the near term, but we're definitely working through a regulatory process to get other products on to that market. But it's about a third, a third, a third, and our – the new distributor that we have has done a fantastic job for us.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. And then a few – just a few financial questions. I think we've got about seven minutes left. So you guided to 15% to 17% revenue growth for 2023. You did – I'm talking about constant currency here now. You did 22% last year. That's about a 600 basis points slowdown. I would assume you've baked in some degree of conservatism there, but why do you think it's going to slow from the 22% by 600 basis points from last year?

<<Angela L. Wirick, Chief Financial Officer>>

Yeah, definitely I've baked in some conservatism. I think, we want to make sure that when we're giving guidance that we're – have good numbers that we feel like we can progress through the year potentially in beaten raised, that's been AtriCure's kind of history here. When you think about a couple of things we've touched on the launch with EnCompass, that was an immediate boost once you start to lap again. We can go through kind of the pricing versus volume. But I do think you're going to see a bit of an impact to the overall growth rate once you're in kind of the second full year of launch versus the initial year of launch.

The other two areas I would point out that have been excellent growth drivers for us, both cryoSPHERE and the AtriClip. You start to think about the volume of those businesses, the size of those businesses. And we're just trying to judge, can a business for AtriClip for example that's over a 100 million, can that continue to grow kind of at the historical rates we're assuming, look, there's still really great progress. These are untapped markets that we still have a lot of room to grow, just probably not at the same historical rates when it was a smaller base business.

<<Mike Matson, Analyst, Needham & Co.>>

Okay, got it. That makes sense. And then I wanted to ask about your gross margins. So I don't remember if you gave guidance for 2023, but how much of a headwind do you expect from inflation and then, longer term, where do you expect gross margins to go? It seems like you have some products like CONVERGE that have much higher gross margins, but I guess my understanding is pain management's a bit lower. So how does that kind of all net out I guess and then international is probably lower as well, I would imagine?

<<Angela L. Wirick, Chief Financial Officer>>

Yeah, so the biggest impact to our margin is definitely geographic in the near term with some of the growth drivers and the nice momentum that we're seeing in our European market in particular. I think international will have a year where they grow up pretty close to the U.S. rate, so that would tell you look in 2023 geographic mix is probably not a bigger part of the story when you think about product mix. The two headwinds so to speak are the EnCompass clamp and the cryoSPHERE probe. When you compare those to other ablation devices in the U.S., it is a slightly lower margin. So that does impact the margin the near term. There are also two products that are kind of newer in production. The cryoSPHERE was launched in 2019, EnCompass was obviously launched in 2021, 2022, but kind of a full launch.

Those are two areas we've identified with some leaning activities where we'll pull costs out of the devices. Eventually think that'll hit more in 2024. So – but that's something that we would expect longer term to be a benefit to the overall margin. And you are correct, EPi-Sense is a really nice margin product for us, one of the highest in our portfolio. To the extent that we see some acceleration there. I think that is upside to margin. The general kind of guide that we gave is, look, we think that we're operating around the 74%, 75% where we've been for the last two years. The mix – product mix probably has a bigger impact this year and we started to see more

of a mix from kind of supply chain and inflation costs towards the end of 2022. I feel like we've got a pretty good handle on that for 2023 and would hope as we exit some of the leaning activities and the cost reduction initiatives within the ops team would ultimately benefit and offset those costs.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. Got it. I think we're almost out of time. So I want to ask a final one just on the balance sheet. I think you had 121 million of cash and short-term investments at the end of last year. How much cash do you expect to use this year? And do you have enough to reach cash flow positivity?

<<Angela L. Wirick, Chief Financial Officer>>

Yeah, we do. So our balance sheet is very solid in addition to the 120 million that's short-term. There's another 50 million that's long term that'll mature here shortly. The burn in 2022 was around 50 million. It was a higher burn than I say we would typically experience, particularly as we move into profitability. There were a couple things that went into that number, how stock vests and variable comp payouts, but would expect again to burn in 2023. Typically, the first quarter is the highest burn, but that'll continue to moderate as we make progress on the bottom line.

<<Mike Matson, Analyst, Needham & Co.>>

Okay. All right. Got it. I don't see any questions from participants. So I think we're going to have to wrap up here. But thanks for coming to our conference. Hope you have some good meetings today.

<<Michael H. Carrel, President and Chief Executive Officer>>

Thanks a lot, Mike. Thanks for having us.

<<Angela L. Wirick, Chief Financial Officer>>

Thanks, Mike.