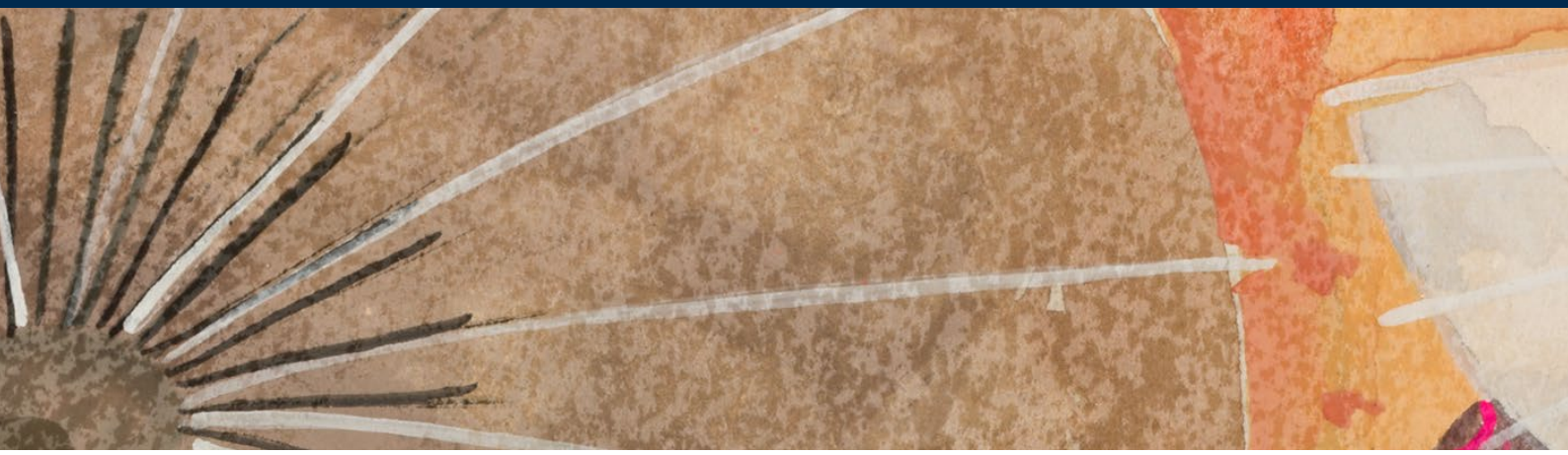

CONVERSATION TRANSCRIPT

UNDERSTANDING NOVO NORDISK

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George:
Hello and welcome to this, the first in a series of videos looking at companies which we find ourselves getting asked about or which have perhaps found themselves more prominently in the news. Today, we are going to start with Novo Nordisk and I'm joined by Lindsay Scott, one of the most experienced members of our Research team and a member of the team that has spent much of her career looking at healthcare.

Lindsay:
Thanks, George. Yes, I joined Walter Scott in 2004. So it's been almost 20 years that I've been with the firm. But prior to that my undergraduate degree was in biology and biotechnology. And

that was before the sequence of the genome, so quite a long time ago! Then I worked for Zeneca before it became AstraZeneca, and I worked in the City [of London] doing corporate finance for biotech companies, which was really interesting. So since joining Walter Scott – we are global generalists so I've rotated around all the teams and I do look at all sectors – I definitely have a good strong interest in the healthcare space.

George:
So onto Novo Nordisk. Novo is a business which I think for – I've not managed 20 years at the firm yet but certainly for – the 15 that I've been here has been very much been associated with diabetes and that remains very much at the heart of the business. But, of course, more recently it's obesity that everyone's been getting very excited about. Perhaps you could share your thoughts on just how big an opportunity you feel it is and how important it is for the business?

Lindsay:
I think it's important to understand the molecule that we're talking about here. So the molecule is called semaglutide. And currently for Novo Nordisk, that's approved as Ozempic for type-two diabetes in a variety of doses. That was approved back in 2017. The same molecule, semaglutide, in 2021, was approved by the FDA for obesity in a slightly higher dose. Both of them are weekly injections.

The diabetic population is enormous and there's huge potential there to treat them with GLP-1s, which is what this molecule is, but the obese population is even bigger. We're really talking about a very, very large percentage of the population. Something like 40% of US adults are obese, which is terrifying. And these GLP-1 drugs are game changing for this patient population. Obesity in itself is quite a new disease. It's only been classified as a disease for ten years. But added to that is just the education of the patient population, the physician population, the insurers, all the different stakeholders, that this is a disease that needs to be taken seriously because it's, you know, dampening economic production. It's costing companies money when their employees can't work. And quite frankly, the stigma attached to being obese and your quality of life is really poor. So it really is life changing for so many people.

George:
Would you care to put an estimate on how big a market you feel it might be for the company?

Lindsay:
Quite frankly, it's very difficult. It's huge. Novo themselves have a target of what translates into dollars of 3.6 billion US sales in obesity by 2025. They're going to hit that this year quite comfortably. We already had almost $3 billion in the first half of the year.

So, you know, it's rapidly growing. I've seen numbers out there estimating 100 billion for GLP-1's in ten years between diabetes and obesity. This is a huge, huge space. These drugs are really game changing and their penetration at the moment is extremely low.

George:
And for context, Novo Nordisk's top line sales?

Lindsay:
About 25 billion last year. In 2022, Wegovy specifically was 3% of sales and Saxenda, which is their other obesity product, which is not that great, but it's still good, was 6% of sales. In the first half of this year, 18% of their sales have been obesity products, and three quarters of that is Wegovy. So it's, fast growth.

George:
A big opportunity.

So the challenge that we tend to find with any company where you've got a fantastic opportunity like this, is that it does attract competition. I think I'm right in saying that (Eli) Lilly is another leader when it comes to diabetes and they also have a GLP-1, not currently approved for obesity but that approval is expected fairly soon. And, I think I'm also right in thinking, that actually the results have been slightly better in terms of weight loss.

So, on the competition side, how do you think about that? How much of a concern do you think Lilly's drug is and are you expecting other new entrants?

Lindsay:
This is not a winner takes all market. It's enormous. You're right, Lilly has a molecule called tirzepatide, which is branded Mounjaro. It's approved for type-two diabetes at the moment and is doing phenomenally well. It's one of the best launches that we've seen in the US. This tirzepatide molecule is expected to be approved imminently for obesity and, yes, you're also right in that the weight loss in the obese population for Lilly's drug is a little bit higher. So 20 to 22% in clinical trials versus 15 to 17% for Wegovy.

But these two companies are really leading by some distance. They also have the next generation of products that are coming through which are taking the weight loss to high 20% with drugs that are currently in phase two and phase three clinical trials. There's a couple of (other) peers, competitors. Pfizer has something that's kind of interesting. Amgen has something that's completely different, it's not a GLP-1 and could be interesting. But they are much further back. They've not been in big patient populations and quite frankly these GLP-1s, the semaglutide molecule, has been on the market since 2017 so it's got comfortable safety data, it's well tolerated, and physicians are comfortable prescribing it.

George:
The other bit of news flow which attracted a lot of attention and that was certainly supportive for the stock recently was around – I always call them, heart attacks, not technically heart attacks but essentially that area – Wegovy showing a material reduction in heart attacks. You can tell me the correct term. That's great for patients, but can you tell me why it is important more broadly, particularly when it comes to, say, insurance, remuneration, etcetera?

Lindsay:
So Novo had this Select trial in obese patients who had cardiovascular conditions or some kind of cardiovascular disease. And what they saw was a 20% reduction in MACE – so that's major adverse cardiovascular events – that encompasses a lot of cardiovascular things, heart attacks, strokes, etcetera. That's really significant.

Obviously, that's great for the patient population because a lot of these obese patients have what's called co-morbidities. They have cardiovascular issues, they have kidney disease or they have cataracts or a variety of different conditions that are called co-morbidities. So this adds to the argument as to why insurers, including Medicare or Medicaid, would reimburse this product in the US.

It's the kind of pharmacoeconomic benefits of giving this drug, it just broadens it out. It's not just about obesity. It's also, if you imagine the cost of patients having heart attacks, it's just adding to the case, really. And what's quite unusual in the US at the moment is that Medicare cannot reimburse for any products for obesity. It's illegal. There is an act that's being proposed called the Treat and Reduce Obesity Act that's currently stuck in the mud somewhere. But with more and more data like this and there's more clinical trials in sleep apnoea, in chronic kidney disease, in NASH (Non-alcoholic steatohepatitis). As we see more positive results, it just gives more and more weight to the argument as to why the US government should cover it. And they will have to eventually. At the moment, it's well covered by commercial insurers, but not at all by Medicare.

George:
And you touched on it there, the focus is very much on the US, it's a huge market, but outside the US, it's starting to get traction. I think in Scandinavia, the UK most recently? The opportunity there, the industry dynamics?

Lindsay:
So it's actually really interesting with Novo because a lot of the focus is on the US but about half the business is what they call international operations and it is growing phenomenally well. It's a very, very diverse market. The only markets they've launched Wegovy in are Denmark, Norway and in the UK, and what they've found is that the vast majority of patients are paying out of pocket, which is highly unusual in Europe. We all expect our healthcare to be paid for, particularly in the UK. But there's 1% of Danes taking this drug and most of them are paying for it. So that just shows the demand that's there.

George:
Interesting.

You touched on something there, I think, which speaks to just how popular this drug's become. And one of the things that I've noticed travelling around over the last year is, we've said this previously, is that Novo, unless you're a diabetic, you'd never have heard of it. Whereas now everyone's heard of Novo, and it's every conversation you have, someone knows of someone that's already taking it, on prescription or off prescription. But that latter element, I suppose, does create risks, reputational or otherwise. How do you think about that? How's the company thinking about that?

Lindsay:
The term you're looking for is off-label, not off-prescription. It is a prescription drug, so you absolutely need a doctor to prescribe it for you. Lars [Fruergaard Jørgensen], the CEO, I was asking him about this and he told me that 98% of the prescriptions in the US are getting to the doctors, to the patients that they're targeting. So, they're quite comfortable that they're getting the drug to the right people, the patients that meet the requirements.

But of course, with something like that, you are going to have patients on the fringes who will convince their physician to prescribe them and pay for it out of pocket. And it's often the Hollywood stars, the A-listers. And that's what makes the headlines. But the reality is that is on the periphery.

But this is a risk for Novo. You know, this is something that they are thinking about, that they are managing and that they're fielding calls left, right and centre on news stories around this. There's a lot of inaccurate news flying around. I was actually just speaking to the company yesterday about a news story that had popped its head up that was slightly concerning. It turned out it was old. It was inaccurately reported. So there's just greater risk when you have a higher profile business than was previously the case.

George:
Absolutely.

Talking about news and news flow, I think the business did attract a lot of, criticism is the wrong, but attention, due to the kind of supply challenges they had at the tail end of last year coming into this year. Refresh my

mind on what exactly was going on there and why we're not expecting a repeat of that?

Lindsay:
Historically, Novo have made all the API, the active pharmaceutical ingredients, the semaglutide, but they use CMOs – contract manufacturer organisations – to fill and finish, to put the drug in the syringes. And they do that themselves, too. But the opportunity is so big that they need help, right? And, also, they need to diversify their supply chain. So what happened was that they stopped new patients coming onto the drug. You titrate up, you start on a low dose and then you build to 2.4, and they wanted the patients who were already taking it to be able to continue on their journey, so they stopped new patients coming on. That issue, in that particular CMO, has now been resolved, but, I think, they've been quite careful. What they've said is that at the beginning of this year, they had one CMO, by the end of this year, they will have three.

So, they're adding more capacity there. But again, it's diversifying the supply chain, but it's added risk for the business. It's more things to manage if you like.

George:
But also a function of the runaway success of the drug?

Lindsay:
Yes. But they have loads of capacity themselves and they are investing heavily. So Karsten [Munk Knudsen], the CFO, was at our conference this year and we were talking about his capex budget this year, which is double what it was last year. It's going from a single digit percentage of sales to a double digit percentage of sales. There's lots that they're doing themselves internally, while also broadening out this relationship with the contract manufacturers.

George:
So, it'd be wrong to not spend some time on what has traditionally been at the heart of the business, the diabetes franchise. There's a chart that I've seen many times over the years that shows the rise of diabetes over decades. And what's incredible is how consistent that's been. That's, I suppose, very appealing from an investment standpoint. But what underpins your confidence that diabetes is going to continue to rise globally?

Lindsay:
It's a sort of depressing fact that diabetes is on the rise. And I think you've got 760 million, I think, the numbers go up every year. And something like only 15% are well managed, which is alarmingly low I would say. But there's a treatment cascade. You start off with diet and exercise, then you'd move on to an oral anti-diabetic and then historically you'd eventually get to insulin, and GLP-1's are now in there. But the penetration of GLP-1 is really low.

Globally about 5% of prescriptions written for diabetes are GLP-1s, the rest you'd have your insulin, you'd have your SGLT2's, you'd have things like Metformin. So, there's a huge opportunity to have a better managed patient population. Now, obviously, or maybe not obviously, you've got type-two diabetics and type-one diabetics. Type-two diabetics can still produce insulin, so a GLP-1 is appropriate for them. Type-one diabetics, you're typically born with it, or you discover later in life that you're a type-one diabetic. You cannot produce insulin and you wouldn't use a GLP-1. So that's where you need an insulin product. But, you know, Novo are still very, very active in this space developing both GLP-1s but also next generation insulins for type-one diabetics.

George:
We were talking earlier about one of the more recent products, which is quite exciting and must be a real game changer for those using it.

Lindsay:
Absolutely. So yes, Icodec is the product that they have submitted recently. It's a weekly insulin and it gives similar, if not better, glucose control. So, for a diabetic who's having to inject themselves daily, shifting to weekly and having that control, really is a game changer. So that's really exciting for Novo and for the patient population that are using insulin.

George:
One of the things that we typically look for in businesses, or take a great interest in, is culture. And you mentioned earlier that Novo's turning 100 this year. You've met with them many times over the years, to what extent is culture an important part of what makes Novo Nordisk, Novo Nordisk? And to what extent has that, do you think, underpinned the success of the business over the long term?

Lindsay:
I've visited a few of their campuses over in Denmark quite a few times and I genuinely remember the first time I went over. It was in 2009 and it's just got that great Danish feel to it. They talk about this triple bottom line. So it's about the social impact, the environmental impact and the financial impact. And you've got to have all of those things aligned. Now, clearly with a company like Novo Nordisk, the biggest impact they can have is social, right? It's producing these phenomenal, drugs that are game changing.

But they really do care about the environmental impact that the business has as well and the governance of the business. So all of these things feed into the culture. And it's one of the challenges that the company has now, as it's in the

limelight, and it's growing so rapidly, how do they do this and bring everybody along for the ride.

George:
But you think they're managing it?

Lindsay:
They are. They're aware of it there. It's something that they're talking about at every board meeting. And I've spoken to the CEO, Lars about it. You know, how do you do that? Because, I mean, that's quite challenging. You see businesses that grow rapidly, you know, the wheels can come off. So, we want to make sure that doesn't happen.

But they've got a great management team. I've met all of them. They're really solid, very down to earth, very realistic about the opportunity. And they're not scared to say when things are going wrong. You know, there's definitely been times in the past where the strategy's not quite worked or they've launched a drug and it hasn't gone to plan. But they are very open about how they are planning for this business as it grows.

George:
You've painted a very positive picture for Novo Nordisk, but no company is without its risks. So when you look forward over the next five to ten years, which is our, as you know, typical time horizon, what do you perceive as being the big risks for the business?

Lindsay:
So the ones that I think are probably the most talked about at the moment, there's a couple. Payment, who's going to pay for this? I mean, this could bankrupt the US if everyone who is obese takes this drug. They can't afford that. So how does that work? Another risk is, how long do people take it for? Because, again, you know, it's an expensive drug. And really once you've taken or once you've started, you really should stay on it. It's a chronic condition. And, you know, the appetite is wicked. You have this wicked rebound if you stop taking it. We're animals. We defend our body weight. So, you know, it's not a pleasant thing to come off. You gain the weight back. So how does that work? That's something that we're looking at. The clinical trials were 16 months, I think. So, do people go on it intermittently or do you stay on it for a long period of time? Again, that comes back to cost. These are the kind of risks and unknowns as to where we go with that.

The culture. How does the company grow rapidly and not destroy the culture? And then there's a few little scientific nuances. So the weight loss, at the moment, around a third is lean muscle mass that you lose. Now, speak to any patient who's taking this drug and they don't care. You know, they just have a much better quality of life because they've lost the weight. But, in an ideal world, you wouldn't be losing lean muscle. They're working on that.

George:
And the other one that I think we've spoken about previously is the patents issue, some way off but it ties in with some of what you've been saying. So maybe just a few comments on why you don't feel it's a huge issue?

Lindsay:
So 2032 is the patent. But the volume that they are producing of this is enormous. So it's going to be very difficult for any generics business. This is not small molecule stuff that you get the recipe and you start making it. These are big proteins, so quite difficult to make, and certainly in the kind of volumes that the demand is there for.

Having said that, there will be people who will come in and make some of it, but it could be that they change their business models slightly so they produce what they call an authorised generic version of it. But don't forget about these new drugs that are coming through. They will have longer patents. CagriSema, which is the one that's the next obesity product, is in phase three with 25% weight loss. In pharma you're constantly on a bit of a treadmill, right? You've always got to come up with something a little bit better, to improve the outcomes. And that's exactly what both Lilly and Novo are doing. They've both got things in trials that are even better than what they're selling at the moment. So it's a risk, but the volume is going to be difficult for anyone to replicate.

George:
So just to paraphrase, ultimately when you get there, you probably want a generic solution but branded and then it's about producing better drugs. So some of that's about that percentage weight loss?

Lindsay:
I think they're looking at mid to high 20s. It's game changing and, you know, there's a lot of genetics, there's a lot of physiological factors when you're obese that have not been well understood and there's increasing research into understanding how obesity works. There's a hormone imbalance that needs to be addressed. And the more that is known, the better we can treat these patients and a better quality of life that they can have. So it's really important that its well understood.

George:
One final question. You have followed the company for many years now, when you look back and consider how it's changed, or not changed I suppose, what's surprised you the most about the business?

Lindsay:
I would actually say the consistency. That is something that we always say here at Walter Scott, isn't it, it's so consistent. We're almost boring. But it's really that consistency in the way

that they deliver the results. They're a brilliant company to be involved in. They're very generous with their time. They hold great capital markets days where they'll take you around their production facilities and you get to meet with lots of people in R&D.

And that's when the science geek in me comes out, you know, and we can spend an hour talking about loads of the science. But you can get a great story. Get the story from either the Chief Science Officer or the Head of Development, who I met with most recently, the CFO, the CEO. It's always been very consistent. They guide pretty well. They promote from within to maintain this culture. You know, there's definitely an element of this consistency that's been absolutely brilliant.

George:
Lindsay, thank you very much. That was really fascinating. And thank you all for watching.

Please do get in touch if you have any questions or, in particular, if there are any other companies that you would like to hear about in the future.

Thank you.

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