Video Low carb for doctors (part 9)

Dr. David Unwin: So thinking about feedback for patients and also safety is a good idea to chat about what we're going to measure and why. So basic things first. I've already talked about getting a baseline weight. For me that is absolutely fundamental.

But I also add to that waist circumference, because I find it particularly affected by the low-carb diet in a flattering way. So this is great feedback for people when they find their waist is getting smaller. And some of my best ever graphs have been what I call low-carb liposuction, where some of the waist shrinks down so much. So those are the first simple ones.

And then I'd add to that blood pressure. And this is because you will very likely find if patients lose weight that blood pressure is going to improve. That's feedback but also is an element of safety here, because if they're on hypertensive medication then you may be going to make some changes for your patients. It's a good idea to tell them in advance and explain why you're measuring the blood pressure.

It's an opportunity also to bring up the idea of perhaps some home monitoring of blood pressure. Patients quite like to do that. And then they can chart their own improvements and many of my patients have done that. Is good feedback, is good safety too. Also going along with that would be the idea of blood sugars.

Now you can monitor that with a blood sugar meter. As well, many of my patients have their own blood sugar meters. Or we can be more sophisticated, of course we're all now using hemoglobin A1c. A quick word about hemoglobin A1c. It's useful to explain to patients that this is a blood test which gives me an idea of how sugary you have been in the preceding 2 to 3 months.

And so it gives us a really good idea of how you're doing. I find a lot of patients are being refused blood tests more often than once a year or twice a year. I think this is a shame. If you're going to do a hemoglobin A1c you'll often find a significant drop after only two months. And that early feedback is so valuable for the patients.

So personally I'm getting a baseline hemoglobin A1c and then I'm going to be repeating that blood test after two months, because it gives me an idea of how they're doing. For me most of the patients I'm doing blood tests after two months of starting low-carb because I want to know how they're doing.

Other blood tests. I like to monitor liver function. Again this is an opportunity for positive feedback, because you'll find particularly the gamma GT results and other of the liver function will improve significantly. Gamma GT is particularly interesting... I always thought that was due to alcohol.

And actually the results I get with low-carb, the gamma GT results are improving by about 35% in the first year. Many of those are patients who previously I told off thinking they were drinking and I've heard they weren't... it seems to be linked for so many people to carbohydrate intake. That brings me on I suppose to lipids. I would get a fasting lipid profile to start with and then I'm going to be doing that again after two months. I also do thyroid function.

It's interesting the TSH particularly seems to improve in the first year. I haven't seen this written up yet, maybe I'll be the one to do it, but certainly the TSH seem to be improving. The other thing I would say is do a full blood count as well because you can't really interpret hemoglobin A1c without knowing what the full blood count is. I'll illustrate that, I had a case recently of a seemingly wonderful hemoglobin A1c, a really low result.

And that was actually because of anemia. So somebody with anemia will have a low hemoglobin A1c, and it isn't good news. So occasionally I've come across what looks like a really good hemoglobin A1c, but actually the patient has maybe colorectal carcinoma, they are bleeding, they are anemic. So you can't really do hemoglobin A1c in my opinion in isolation. You should be doing the full blood count as well to check.

One thing to look out for while you're measuring, if somebody is losing weight and hemoglobin A1c isn't improving, you really need to ask why is that. Because it could be that you've missed a pancreatic carcinoma something like that. So that pattern of weight loss without an improvement in hemoglobin A1c should be a cause of interest and you need to go into that a bit more. Moving on now into record keeping.

I think is really useful to build up a file of evidence of what we're doing. So in this practice for four and half years now patients were serious about this, we actually consent them to sharing their anonymized data.

So that means I have a database of a cohort now about 150 or 160 patients over the time that I can share with other people showing evidence of what we're doing. So that's worth bearing in mind. The best way to keep the database is something like an Excel spreadsheet so that you can keep updating it.

And for any of you that get interested later on in publication, that sort of data is exactly what you need to write a paper. So for me the journey went all the way from keeping data to publication. An exciting journey. So it is really worthwhile both

personally and professionally keeping those records, on top of which they form a really useful source of positive feedback for your patients.

So I mentioned keeping records on an Excel spreadsheet. And to illustrate my point I've got my own here that I'd like to share with you. This is useful really because I can show you what sort of average results I've been getting over the last few years. So if we begin just with looking here at weight, so my average patient who started off weighing about 95 kg and then the average result is they weigh about 86.

So they're losing about 9 kg on average. Of course, many of the patients have lost more than that, many of them have lost less. Moving over I mentioned liver function test. A particular fascination for me is the gamma GT results. You'll see we're beginning there with an average result of 84 and that's dropping down to 45, which is a very significant improvement.

Of course for many of you you're looking at type 2 diabetes and now we've got the average results for the hemoglobin A1c. Now if you take pre-diabetes and also diabetes and lump them together we're getting an average hemoglobin A1c starting at 59 and ending up at 44. So that's a reduction in 15.4 mM per mole.

Just stepping back a little, if you look at the subgroup who actually have type 2 diabetes, there is also rather more impressive where we're beginning with an average hemoglobin A1c of 68 and ending up with an average hemoglobin A1c of 47. Moving on we talked about lipids. Interestingly again looking at my sheet we get a slight drop in the serum cholesterol on average.

So you'll see it starts off on average 5.3, will end up at 4.9. There's not a big drop, but it is actually a significant one. Moving across, triglycerides are even more dramatic. This is of course linked more closely in with carbohydrate metabolism. So it's not a surprise that the triglyceride here is dropping from 2.3 to 1.5. So triglycerides improve by about a third. The HDL cholesterol on average is improving as you see there.

So it starts lower at 1.2 and it's going up, because of course we like hemoglobin A1c's to go up. So we've nearly finished now, just a final point on of blood pressure... We measure lots of blood pressures, again with weight loss we're getting the systolic's dropping by about 9 mmHg and the diastolic here is dropping on average by about 7 mmHg.

And bear in mind these results are achieved alongside quite a lot of de-prescribing of drugs for hypertension and also de-prescribing for lots of drugs for diabetes. So we're getting better results with fewer drugs. So that's my Excel spreadsheet. So just to

summarize, we've been looking at what you might measure and that would be weight, blood pressure, lots of blood tests.

What you're hoping to see is results as I've just shown you, which are really great improvements in weight, improvement in blood pressure, improving liver function, dropping hemoglobin A1c and some improving lipids.