

# The ABC of diabetes management

Diabetes self-management is not as easy as ABC, but it is certainly a good place to start, writes **Deborah Condon**

**G**ood diabetes management is essential as we get older as it is key to avoiding the burden of disease, prolonging life and improving the quality of that life, according to Dr Maeve Durkan, Consultant Endocrinologist at the Bon Secours Hospital, Cork.

Speaking at the recent Diabetes Ireland Health and Wellbeing Exhibition in Limerick, Dr Durkan explained to a packed room of attendees how to get the most out of their diabetes appointments.

“People ask why diabetes management matters. It matters because of the risk of heart disease, stroke, kidney disease and small vessel disease,” she said.

Heart health is a particular concern because in terms of risk, having diabetes is similar to having suffered a heart attack, according to Dr Durkan.

“We want to be really clear that we are going to treat you as if you are a heart risk person and we will be very aggressive about managing those risks

as if you have heart disease,” Dr Durkan noted.

She explained that when you attend your diabetologist, there are three things you should always discuss, which she refers to as the ABC:

- A – A1c (HbA1c)
- B – Blood pressure
- C – Cholesterol.

“You need to have three questions in your mind, and three goals, and this is regardless of whether you have Type 1 or Type 2 diabetes,” she said.

#### **A: A1c (HbA1c)**

‘A’ is for HbA1c, or A1c for short. HbA1c is a routine blood test that is carried out every three months. It provides an indication of how much glucose has been in your blood over that time period. This gives a better indication of what your glucose control is like compared to a blood glucose test, which simply provides your glucose levels at that one moment in time.

Dr Durkan explained that in the ‘old

currency’, your HbA1c figure was given as a percentage and the treatment target was 6.5-7%. In the ‘new currency’, the target is 53mmol/mol.

She explained that while these figures should be kept in your head as a ballpark, your HbA1c target should be personalised to you depending on factors such as age and risk.

“If a patient comes in at age 80 and they have had a heart attack and a stroke, I am not going to be stringent about targets. I have to look at the patient in front of me and the medications they are on and personalise their target. But every single one of you needs to say to your diabetologist: ‘what is my HbA1c target? Is it 53mmol/mol, less or more?’ You need to know what you are working towards,” Dr Durkan noted.

The HbA1c test is usually carried out by your GP. As some people only see their GP every six months, Dr Durkan reassured attendees that while the test is a three-month test, if your figures are



within range, having it done every six months is fine.

When it comes to achieving your HbA1c target, there are three main areas that people need to be aware of – diet, exercise and medication.

#### *Diet*

In terms of diet, Dr Durkan emphasised that she is not a dietitian, but her general advice would be “you need a lot less of everything white and a lot more of everything green”.

“Everyone thinks diabetes is about sugar and they come into me and say, ‘but doctor, I don’t take sugar in my tea and I don’t drink sugary drinks’. But the reason I say white is that everything white is a starch – a carbohydrate that is broken down and converted into sugars in your body. Foods like pasta, potatoes, white rice, white bread. The more white foods you have, the higher the sugars.”

Fruit juice is another food that people can be confused about. They will buy juices marked ‘no added sugar’, but

many contain a lot of raw natural sugar.

“I have seen patients with sugars that are high after every breakfast, but they are perfect after lunch and dinner. When we looked at the diet, it was the glass of orange juice at breakfast that was sending sugars through the roof. So instead of having to prescribe another tablet, I’ll say ‘cut out the orange juice’. And that goes for both Type 1 and Type 2,” she said.

#### *Exercise*

Dr Durkan says adults should undertake at least 20-30 minutes of exercise per day.

“This doesn’t mean joining a gym. It is about finding something that will fit in with your lifestyle. Whether that is going for a walk or sitting on an exercise bike while you watch some TV,” she said.

She also emphasised that exercise is not all about losing weight. While some people may need to lose weight and exercise will obviously benefit them, exercise in diabetes is about increasing the effectiveness of the pancreas.

“I may say to my Type 1 patient, if you go and exercise after every meal, you need to reduce your insulin at the meal ahead of the exercise because it will improve the whole dynamics of diabetes.

“And it is exactly the same with Type 2. We often talk about insulin resistance. That is like climbing a hill; the higher the hill, the more work that is needed. If you can reduce the size of the hill, you don’t have to work as hard and you will get more out of the pancreas. That is what exercise does for your pancreas. It reduces the workload and makes it much more effective,” she explained.

Dr Durkan said it doesn’t matter what kind of exercise you are doing, as long as you are doing something.

“People may stop exercising because they are not losing weight, even though their diabetes is good. But then the weight starts going up and the hill gets bigger and suddenly you need more insulin if you are Type 1 or more medication if you are Type 2. Don’t set your stall by

weight loss with exercise. Think of it as allowing the pancreas to be much more effective. It really helps whether you lose weight or not," Dr Durkan noted.

## Medication

When it comes to medication, after Glucophage (metformin), there are three main classes of drugs:

- SGLT2 class
- GLP1 class (injections)
- DPP4 class (tablets).

According to Dr Durkan, the SGLT2 and GLP1 classes are gamechangers for people who have had a heart attack in the past or who have heart failure. The SGLT2 class of drugs result in an average of 2% weight loss and trials show that if you have heart failure, they will improve the condition, reduce the risk of hospitalisation and death. After metformin, they should be second-choice drug if you have heart failure.

If you have had a heart attack, the GLP1 class of drugs should be the second-line drugs for you as they reduce the risk of a second heart attack by 20-30% as well as reducing the risk of death. They also facilitate weight loss in about 80% of people who take them. However Dr Durkan noted that everyone assumes that because these drugs are administered by injection, they must be insulin.

"People come in and say they don't want to be on injections because they think it is insulin. It is absolutely not insulin. They are tiny needles and if you are struggling with your weight, this would be a good drug for you," she said.

The DPP4 class of drugs comprise newer medications that are neutral for weight loss, do not harm the heart and do not lead to hypoglycaemia.

"So we have moved from where we were 10 years ago when the only drugs we had were either insulin or a medication which meant you had to deal with the weight gain and you had to deal with the fear of going low. We don't have that anymore with these drugs," Dr Durkan pointed out.

## B: Blood pressure

'B' is for blood pressure. Patients often blame their high blood pressure



*Dr Maeve Durkan: "It is essential that people are aware of the development of their own diabetes as they grow older."*

reading on 'white coat syndrome' – anxiety or stress caused by the doctor visit. However, Dr Durkan agrees that you cannot determine high blood pressure based on a single reading; the gold standard is a 24-hour monitor. So if a patient has a high blood pressure reading, she will recommend this as it gives her a sense of what is going on.

It is essential that patients know what their target blood pressure should be.

"Just as we know that diabetes and blood glucose control are important in heart disease, stroke and small vessel disease, blood pressure is equally, and dare I say, almost more important.

"Blood pressure is as important in Type 2, if probably not potentially more so, than HbA1c. You want to reduce the risk of heart attack, small vessel disease, eye disease, kidney disease. Very high blood pressure can equally cause retinopathy or kidney disease. That is why it is so critical for us to treat it," Dr Durkan explained.

A healthy blood pressure reading is 130/80 whether you have diabetes or not. If your upper number is between 130 and 160, you will need a single tablet. If higher than 160, you will need a drug combination.

"There are no physical indications of blood pressure. It is so silent that people often wonder why they are being put on a tablet when they feel fine. However even if you feel well, if your blood pressure is high, you need treatment.

"So ask your doctor what your blood pressure is. If it is high, ask if you will be getting a 24-hour monitor. Ask what your target is and what medications you may need," Dr Durkan said.

## C: Cholesterol

'C' is for cholesterol. This is another thing everyone should know, however people are sometimes unaware of what is important in their reading.

Dr Durkan said she often has patients who say 'my cholesterol is five, so it's fine, or my cholesterol is seven, I need treatment'. However, she pointed out that your total cholesterol does not matter. What matters is what your cholesterol is made up of.

There are three types of cholesterol – the good, the bad and the ugly:

- The good is healthy HDL
- The bad is triglyceride
- The ugly is lethal LDL.

"It's the LDL that matters – the ugly is the one we are going after first. Depending on the proportions, your total may be higher or deceptively lower. The higher the LDL, the greater the risk. The lower the LDL, the lower the risk. It's as simple as that."

Dr Durkan added that the vast majority of people (97-98%) do not need to fast before a cholesterol test because LDL is unaffected by fasting. This can be helpful as it means patients with diabetes need not be restricted to early morning services only.

## Awareness

In conclusion, Dr Durkan again emphasised the importance of good diabetes management in order to reduce the risk of complications, prolong life and improve the quality of that life.

"It is essential that people are aware of the development of their own diabetes as they grow older and the impact it can have if they do not effectively manage their condition," she added.