INDEPENDENT DIABETES TRUST Newsletter

May 2017 Newsletter, Issue 93

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Should we not be told the truth too?

IN THIS ISSUE...

"There has not been as much progress 'as we had hoped' and that a fall in HbA1c levels and instances of hypoglycaemia since 1993, are primarily due to care and system improvements and not to insulin analogues."

This was a statement made by Dr David Levy of the London Diabetes Centre entitled *'Injectables: is there anything new?'* at the Diabetes UK Professional Conference but this is a conference for health professionals. However, as this statement is very significant, it raises the question of whether we, as patients, should be given this same information? (Pract. Diab. Vol34 No.3)

We are told often enough that the NHS is strapped for cash and we are equally aware that diabetes plays a large part in the expenditure of the NHS. Diabetes is costly to treat, especially the cost of the newer insulins and newer treatments for Type 2 diabetes but costs are not discussed with us. Why not? It is our NHS funded by us as taxpayers.

Insulin analogues are significantly more expensive than human (or animal) insulins, yet according to Dr Levy and the evidence, they are not any better for the majority of people. If we, as patients, were told this, some of us might choose to use less expensive insulin to protect the NHS, or to ring-fence this saving to stop the rationing of blood glucose test strips.

Dr Levy concluded that we need to 'champion technology' that really works, such as continuous glucose monitors and insulin pumps. Long-acting analogue insulins 'are not equipotent', which means that they do not have equal power or effects. He added that people should not be changed to insulin analogues 'without good clinical reason'. However, suggesting that we should 'champion technology' seems unachievable when we have a situation where people are being restricted or denied test strips which is the most simple form of technology to help people to manage their blood glucose!

Dr Levy cited the following studies:

Long-acting insulin analogues in Type 1 and Type 2 diabetes

When comparing insulin glargine (Lantus) with NPH insulin and degludec (Tresiba), there were no differences in HbA1c levels or hypoglycaemia. The only noticeable change was a slightly lower fasting rate with degludec (Tresiba) in people with Type 1.

Note: NPH is also called isophane, such as Insulatard, Humulin I or Hypurin Porcine Isophane.

Fast-acting insulin analogues in Type 1 and Type 2 diabetes

Dr Levy described these results as 'similarly uninspiring'. Insulin lispro (Humalog) did not produce any meaningful reduction in HbA1c results and gave worse results for blood glucose levels during the day when compared to human soluble insulin. Note: human soluble insulins are Actrapid, Humulin S or Hypurin Porcine Neutral.

A Cochrane Review concluded that there was only minor benefit of short-acting analogues on blood glucose control and no clear evidence for a substantial effect of insulin analogues on quality of life. No trial was designed to investigate possible long-term effects, in particular in people with diabetic complications and further trials are needed to assess the long-term outcomes for patients, efficacy and safety information.

Injectables for Type 2 diabetes

Category of drugs known as GLP-1 antagonists

These are injected drugs for Type 2 diabetes, such as exenatide (Byetta) and liraglutide (Victoza), and Dr Levy reported that these are more promising in terms of 'reasonable or good durability of glycaemia and weight reduction'.

Let us hope that some of the health professionals at the conference go back to their localities and discuss the advantages of prescribing less expensive insulin, so that more money can be put into diabetes care, test strips and continuous glucose monitors.

Note: perhaps this is a time to remind readers that IDDT does not accept any funding from the pharmaceutical industry to remain uninfluenced and unbiased.

Extension of medically restricted driving licences

People with diabetes who use insulin have to have a medically restricted driving licence. Until recently such licences have been granted for a maximum of 3 years. However, one of our members who has had Type 1 diabetes for many years, was surprised when she received a new driving licence for 4 years and she even rang the DVLA to find out if this was correct!

So we visited the DVLA website and found that there have been changes. It says that the DVLA will assess your medical condition and:

"you can have a shorter licence – for 1, 2, 3 or 5 years" and "DVLA will send you a renewal letter 90 days before your 1, 2, 3 or 5-year licence is due to expire".

We were aware that this change was under consideration. However, we have never received or

seen a press release from the DVLA to this effect but this is obviously the up-to-date situation.

Driving and hypoglycaemia

The DVLA has also sent out a consultation document about changing the rules on driving and hypoglycaemia. One of the proposals is that the two severe hypos which presently result in the loss a driving licence, will be changed to 'during waking hours', so nocturnal hypos would not count. There are other proposals included but these changes have NOT been made yet and if they are, they will not come into effect until 2018.

Rationing of blood glucose test strips

In our last Newsletter we highlighted the rationing of blood glucose test strips for people with Type 1 diabetes and Type 2 diabetes, in contravention to NICE guidance. Since then Diabetes UK have published the results of a survey of more than 6,000 people and 25% of them had not been prescribed enough test strips for their needs.

A different survey of 1,000, half of whom had Type 1 diabetes, found that 27% of them experienced restrictions or refusal to prescribe test strips. The reasons given for the rationing were budget constraints and/or perceived unnecessary blood glucose testing.

The participants with Type 1 diabetes made the following comments:

- Having restricted access to test strips put them in stressful situations of having make the decision of whether to test or not.
- Others had concerns about the quality of the test strips they felt forced to buy online.
- People with Type 2 diabetes are not encouraged to self-monitor their blood sugar and told that they should test less.

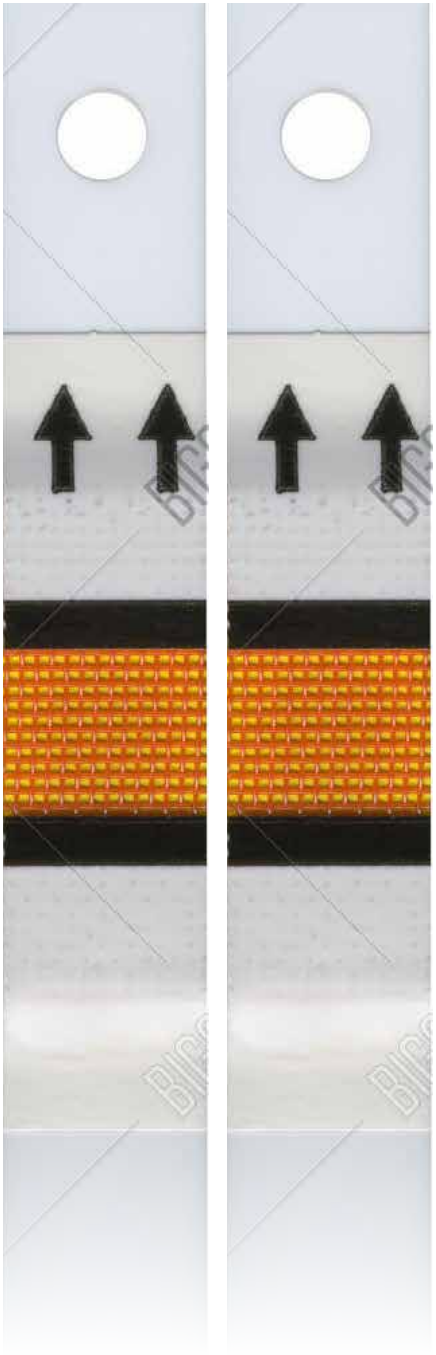
The Diabetes UK report stated that GP practices often place restrictions on test strips because of guidance from the Clinical Commissioning Groups (CCGs) but since the 2012 Health and Social Care Act, CCG guidelines are supposed to be in line with NICE Guidance. Clearly for a lot of people with diabetes, this is not the case! However, this does enable people who are denied the number of test strips they need to argue their case with their GP practice.

People with Type 2 diabetes do benefit from blood sugar checks

Experts have questioned the value of self-monitoring in people with Type 2 diabetes and in the UK, they are often denied test strips. Clearly cost is the issue but IDDT has always maintained that there should not be a blanket ban on test strips because some people with non-insulin treated Type 2 diabetes will benefit.

A small study in the US has shown that self-monitoring benefits people with Type 2 diabetes even if they're not taking insulin. Self-monitoring twice a day was the most helpful in providing meaningful information about blood sugar levels. The study also showed that there was a need for an individual approach based on a person's lifestyle, for instance, some people might check their blood sugars twice a day for 3 days of the week and others once a day 7 days a week.

People were taught what action to take according to their blood sugar levels readings in a number of ways, such as eating less or going for a walk. All the people in this study lowered their HbA1cs from an average of 7.3% to 6.2%. The usual goal for people with Type 2 diabetes in the US is to keep these



levels below 7% (53mmol/mol), so this was achieved.

One of the researchers commented that study participants said that sticking to a regular, self-monitoring schedule really helped them to know where their blood levels were and take appropriate action, such as adding physical activity or choosing a healthy snack. They also said it helped them to accept that they had diabetes and to feel confident that they could control it rather than letting it control them. (American Association of Diabetes Educators, Aug. 5, 2015)

Holiday Tips

Whether going on holiday abroad or in this country, it may be the first time you have travelled since your diabetes or your child's diabetes was diagnosed. Here are just a few tips:

General Tips

- Excitement can affect blood glucose levels, so it is important to test regularly and be prepared for some low blood glucose levels.
- Hypos may be unexpected due to changes in routine, in temperatures or in the amount of exercise taken, such as swimming or sightseeing, so always be prepared. It is a good idea to take plenty of glucose tablets with you because they won't melt, leak or become sticky in high temperatures.
- When travelling always wear identification that states you have diabetes, especially if you take insulin, and if possible, gives an emergency telephone number.
- Insulin should not be packed in your suitcase. This will be placed in the hold where the temperature can be below freezing and this is likely to damage your insulin. Your blood glucose meter should also not be packed in the hold.
- It is worth remembering that ordering a 'diabetic' meal on flights often means that they are low in carbohydrates, so it is probably not a good idea. On long journeys it is a good idea to have snacks to hand in case there are long periods without meals.

If you would like more information on holidays, IDDT has produced a document which will give you a few practical tips and help you to plan ahead for your holiday.

Call IDDT on: 01604 622837,
email: enquiries@iddtinternational.org or write to:
IDDT, PO Box 294, Northampton NN1 4XS

Worth noting!

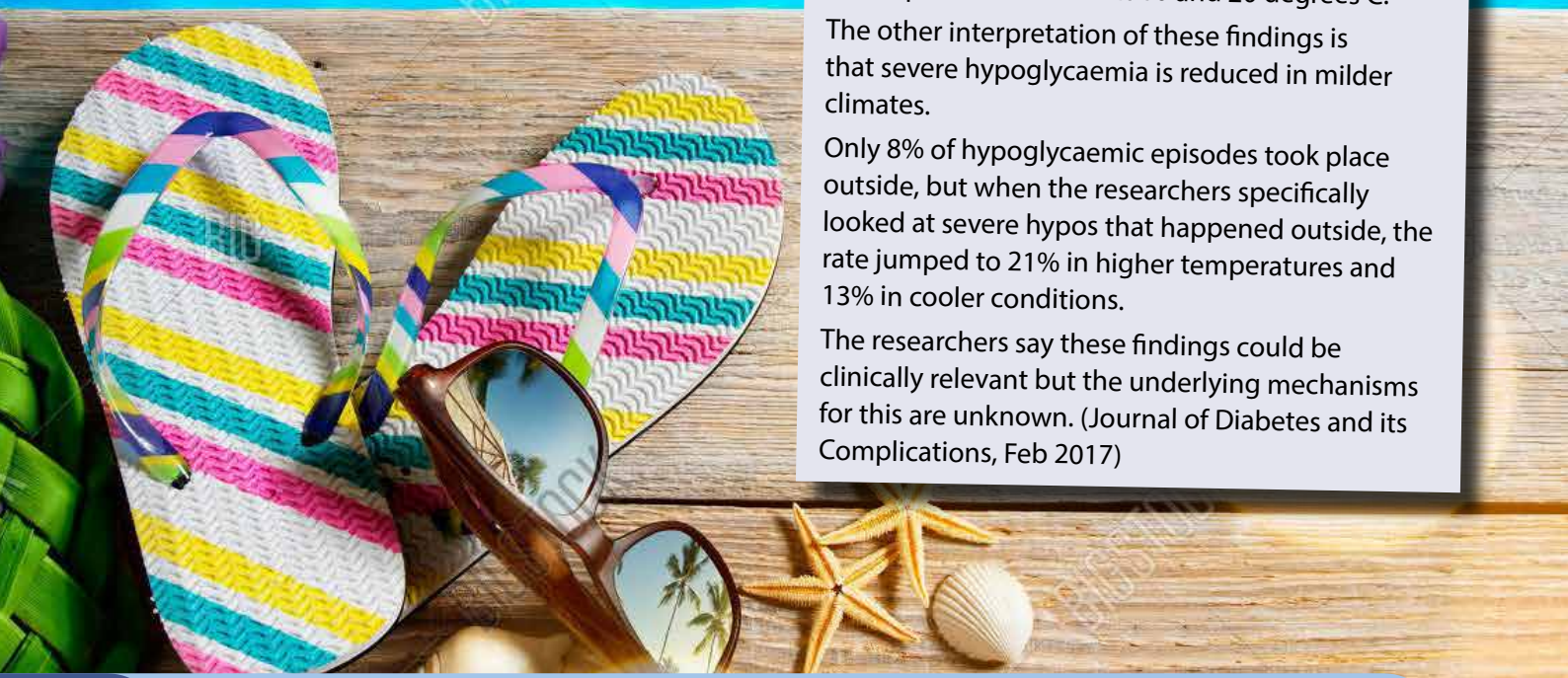
Frequency of severe hypoglycaemia reduced in milder climates

Research has shown that people with diabetes experience more incidents of severe hypoglycaemia during hotter and colder weather. 2,500 people living in Hamburg were involved in the research which showed that severe hypos increased by 18% in higher temperatures and 15% in colder climates when compared with what the researchers describe as 'the thermal comfort zone' of temperatures between 10 and 20 degrees C.

The other interpretation of these findings is that severe hypoglycaemia is reduced in milder climates.

Only 8% of hypoglycaemic episodes took place outside, but when the researchers specifically looked at severe hypos that happened outside, the rate jumped to 21% in higher temperatures and 13% in cooler conditions.

The researchers say these findings could be clinically relevant but the underlying mechanisms for this are unknown. (Journal of Diabetes and its Complications, Feb 2017)



Good news!

Diabetic retinopathy no longer the leading cause of blindness in the working population

As most readers will be aware, in England there is a NHS Diabetic Eye Screening Programme the aim of which is to reduce the risk of sight loss amongst people with diabetes. Screening enables prompt identification of sight-threatening diabetic retinopathy and if necessary, effective treatment at the appropriate time.

There are also programmes in the other three UK countries but the programme started in England in 2003 and by 2008, the whole of England was covered. The benefit of the programme has been demonstrated because in England and Wales diabetic retinopathy/maculopathy is no longer the leading cause of blindness in the working population – for the first time in the last 50 years. Inherited retinal disorders are now in this position.

- In 2015–2016, the NHS Diabetic Eye Screening Programme in England offered screening to 2,590,082 people with diabetes and 82.8% took up the offer. There were 3,083,401 known people with diabetes, but people who are already under an ophthalmologist for diabetic eye disease and certain other categories of people are not invited.
- There were 7593 urgent referrals with proliferative retinopathy and 52,597 referrals with screen-positive maculopathy or pre-proliferative diabetic retinopathy.

This improvement is thought to be due to the introduction of the screening programmes and to improved control of blood glucose levels. As a result of this improvement, the UK National Screening Committee published their recommendations in January 2016 that:

- For people with diabetes at low risk of sight loss, the interval between screening tests should change from 1 to 2 years.
- The current 1 year interval should remain unchanged for the remaining people at high risk of sight loss.

Ramadan 2017 and fasting

Ramadan is based on the ninth month of the lunar calendar, so this year it is expected that the fast of Ramadan will start on Saturday, the May 27th and will continue for 30 days until Sunday, June 25th. During this month it is expected that Muslims who participate will abstain from food, water, beverages, smoking, oral drugs and sexual intercourse from sunrise to sunset.

Ramadan moves forward each year by about 11 days which means the length of fasting is greater at certain times of year than others. The length of fasting has special consequences for people with diabetes, especially those taking insulin and the risk of complications increases with longer periods of fasting.

People with diabetes may be exempted from fasting but the majority of people with diabetes do fast so run increased risks of adverse health effects, such as hypoglycaemia, hyperglycaemia, diabetic ketoacidosis and dehydration. Most of these are as a result of a reduction of food and fluid intake and the timing of meals.

There are no evidence-based guidelines for safe fasting, so people have to rely on expert advice from doctors and their personal experiences. However, a study in people with Type 1 and Type 2 diabetes carried out in Pakistan, has shown that with active glucose monitoring, alteration of drug dosage and timing, dietary counselling and patient education, the majority of patients did not have any serious acute complications during Ramadan.

In addition, researchers have quoted an observational study which showed people with Type 2 who did not have education about fasting were 4 times more likely to have hypos, so they recommend that those who do not normally self-monitor blood glucose should be provided with meters (Diabetes Medicine, February 2016).

Recommendations

The findings of this and other studies suggest that people with Type 1 and Type 2 diabetes should have an assessment with their diabetes team 1 to 2 months before Ramadan about drug/insulin adjustments, exercise and awareness of the risks of hypo- and hyperglycaemia. If they are ill during the fasting, then they should seek advice from their diabetes team.

The General Election did not prevent the sugar tax going through!

On April 27th, 2017 the Queen gave approval to the Finance Bill which includes the Soft Drinks Industry Levy. The calling of a snap election could have prevented this going ahead but the Bill passed through the Lords and the Commons, so the sugary drinks tax will take effect from April 2018, as planned. In addition, the Government committed to reviewing the evidence in 2020 and to then decide whether milk-based sugary drinks should be included.

Public Health England previously announced the guidelines for the food industry to reduce the amount of sugar in everyday foods, the aim being to reduce sugar content 5% by August 2017 and 20% by 2020.

The guidelines include the recommended sugar content limits for 9 food groups:

- breakfast cereals
- ice creams, lollies and sorbets
- confectionery (chocolate and sweets)
- sweet spreads, which is sub-categorised into:
- chocolate spread
- dessert toppings and sauces
- fruit spreads

There are 3 approaches the food industry can take:

- reformulating products to lower the levels of sugar,
- reducing the portion size, and/or the number of calories in single-serve products,
- moving consumer purchasing towards lower or no added sugar products.

For example, the Brecks Company, the makers of Honey Monster Puffs reformulated them to have 25% less sugar, effective from March 2017.

People with diabetes need to be aware!

The reduction in sugar in sugary drinks and food has implications for people with diabetes who use such drinks and food to treat hypoglycaemia. The changes in the reformulated food and drink mean that people may not be receiving as much sugar as they have done in the past.

So people with diabetes need to be aware of possible changes when treating a hypo. IDDT has been contacted by the manufacturers of Lucozade to say that they are bringing out their newly formulated version with less sugar in April 2017. However, they also say that both the higher sugar version and the 10% lower sugar version will be on sale at the same time - until stocks of the original are all sold.

This adds to the confusion and makes it even more important that you check the labels to know the sugar content. It is also likely to happen as other products are reformulated, so the golden rule is to ALWAYS check the label of drinks you use to treat hypoglycaemia.

Beware if you live in Bristol!

Bristol aims to become a low sugar city to tackle obesity and poor dental health. The city council, large sports organisations and the university have joined Jamie Oliver's Sugar Smart campaign where videos will be screened to urge fans to drink water instead of fizzy drinks and where snacks are sold, they should put high sugar products at the back with healthier options at the front.

UPDATES ON BENEFITS

Simply having diabetes does not necessarily entitle people to benefits but the complications of diabetes may make some things in daily life more difficult and this may mean an entitlement to benefits.

Disability Living Allowance (DLA)

This is an allowance for children under 16 who have additional needs in terms of care and/or motility compared to other children of the same age. It is tax-free and not means tested. It is granted to children with diabetes because of the extra care that they require compared to children without diabetes. Application forms should be completed by the parents or guardians along with a supporting statement.

Personal Independence Payment (PIP)

PIP has replaced what was DLA for adults and PIP now applies to people between the ages of 16 and 64. It is to help with long-term ill health or disability. If you have diabetes and have difficulty looking after yourself or managing your medicines, you may be eligible for PIP. There is a daily living component and a mobility component and whether you are given PIP and which components is decided after you have made an application and been assessed. In applying you will need to explain the impact of your diabetes on your daily living.

Note: You still receive DLA if you have an existing claim and you were born on or before April 8th 1948.

Attendance Allowance

This is an allowance granted to people over 65 who have a physical or mental disability and need help to care for themselves, such as people with diabetes who have disabling complications. Once you have applied for this Allowance, you may also have to attend a medical assessment.

Note: If you receive an Attendance Allowance, you may also be able to get extra Pension Credit, Housing Benefit or a reduction in Council Tax.

Carer's Allowance

If you require a significant amount of care, then the person caring for you may be eligible for this Allowance. The carer has to be over 16 and spend at least 35 hours a week caring for you. In addition, if the carer is working, from April 2017 they must not earn more than £116 a week and you must be receiving PIP, DLA (middle or highest carer rate) or Attendance Allowance. The carer does not have to be a relative and does not have to live with you.

Note: People may not be able to receive Carer's Allowance if they receive other benefits but equally, they may be entitled to an increase in other benefits they are receiving. However, this can also reduce other benefits so it is worth seeking advice, such as from the Citizens Advice Bureau.

For further information go to: www.gov.uk / www.gov.scot / www.gov.wales

Ketone Testing

The article about ketone testing in the March 2017 Newsletter has raised questions about what ketones are and how to test for them, so we are following up with more information.

What are ketones?

Ketones are produced when fatty acids are metabolised in the liver when there is insufficient insulin present to convert glucose into the energy the body needs. The ketones are transferred from the liver to the tissues where they are used as a source of energy.

One sign of high ketones is that the breath smells of pear drops. At diagnosis of Type 1 diabetes, diabetes ketoacidosis (DKA) may be present, so ketones are produced.

Measuring ketones

Urine testing

It has been possible to measure ketones for over 50 years by urine testing. This involves dipping a reagent strip in a fresh sample of urine. The strip is removed from the urine, tapped on the side of the pot to remove excess urine then, after 10 to 15 seconds, the strip will change colour. This colour change is then compared with a range of colours on the strip pot. Yellow indicates no ketones present and deepening shades of purple indicate various levels of ketones from trace to large or large-large concentrations.

The urine strips available in the UK include:

- Bayer Keto-Diastix
- GlucoRx KetoRx sticks.

Ketone meters

Ketone meters have been available since 2010 and they measure blood ketones. The method is similar to measuring blood glucose and requires a drop of blood. The meters are provided free of charge to NHS organisations and to people with diabetes.

The meters currently available in the UK include:

- Freestyle Optium Neo
- GlucoMen Lx Two
- GlucoRx HCT & Ketone Monitoring System.

Measuring of blood ketones with a meter is more accurate than measuring ketones by urine testing. However, it is invasive and the strips for meters are more expensive than urine test strips but meters enable earlier detection of DKA.

When to measure ketones

Ketones should be tested if DKA is suspected. In people with Type 1 diabetes, ketones should be tested if blood glucose levels are above 15mmol/l and there is an illness or vomiting.

People with Type 2 diabetes may also have DKA, usually in people who have had Type 2 diabetes for a long time or in people with Type 2 diabetes with ketosis prone diabetes, a condition most often see in people of Afro-Caribbean origin.

Finally, if people without diabetes are showing signs of DKA or at least a trace of ketones in the urine, then a diagnosis of Type 1 diabetes should be suspected.

FreeStyle Libre

In February 2017, a parliamentary question asked when NICE plans to report on the availability of the FreeStyle Libre, the patch system for glucose monitoring. The answer was as follows: "The National Institute for Health and Care Excellence (NICE) is developing a medtech innovation (MIB) briefing on FreeStyle Libre which it expects to publish in May 2017". NICE MIBs provide information on device and diagnostic technologies to aid local decision-making by clinicians, managers and procurement professionals. However, they contain no judgement on the value of the technology nor a recommendation from NICE. So it will still be up to local decision-makers whether the FreeStyle Libre becomes available on the NHS.

Novo Nordisk fast-acting NovoRapid

As reported in our last Newsletter, Novo Nordisk has received marketing approval for fast-acting NovoRapid (insulin aspart) from the European Commission covering all 28 European member states. It is now available in the UK on the NHS and at the same price as NovoRapid. This new fast-acting insulin contains two new excipients (ingredients in addition to the actual insulin) to ensure early and fast absorption.

It has also received approval in Norway, Iceland and Canada but the US requested further information before giving approval, so Novo Nordisk has re-submitted its application.

Europe warns about SGLT2 drugs for Type 2 diabetes

On February 24th 2017, the European Medicines Agency (EMA) issued a statement about a potential increased risk of lower limb amputation (mostly affecting the toes) in people with Type 2 diabetes taking the SGLT2 inhibitors - canagliflozin (Invokana), dapagliflozin (Forxiga) and empagliflozin (Jardiance).

The review of SGLT2 inhibitors was prompted by an increase in lower limb amputations in patients taking canagliflozin in two clinical trials, CANVAS and CANVAS-R. The studies, which are still ongoing, involved patients at high risk of heart problems and compared canagliflozin with placebo (a dummy treatment).

People with diabetes are at increased risk of infections and ulcers, so if they are taking these medicines, the EMA advises them to check their feet regularly and follow their doctor's advice on preventative foot care and to tell their doctor if they notice any wounds, pain or discolouration of the feet.

An increase in lower limb amputations has not be seen with dapagliflozin (Forxiga) and empagliflozin (Jardiance) but information to date is limited, so the risk may also apply to them. A warning of the potential increased risk of toe amputation will be included in the prescribing information for these medicines. For canagliflozin, the prescribing information will also list lower limb amputation as an uncommon side effect.

Paediatric Insulin Pump Therapy/ Continual Glucose Monitoring

A quote from Diabetes Programme e-bulletin: February 2017

- From 1 April 2017 the arrangements for the commissioning of paediatric insulin pumps and continuous glucose monitoring (CGM) will change, with responsibility moving from NHS England to CCGs.
- This change will be supported nationally by the Children and Young People Diabetes Network, but Clinical Networks (CNs) can also support a smooth transition to the new arrangements through local communications.
- NHS England has requested that Regional Communications Hubs work with CCGs and CNs to establish written agreements between the responsible commissioner and their respective hospitals. Diabetes Programme e-bulletin: February 2017

IDDT Trustees

One of our members has requested that we publish a list of our Trustees, so here it is!

- Dr Gary Adams
- Carol Baker (Canada)
- John Birbeck
- Gill Coleman
- Dr Laurence Gerlis (Medical adviser)
- Jenny Hirst (co-Chair)
- John Hutchinson
- Larrane Ingram (Australia)
- Dr Matthew Kiln (Co-Chair)
- Veronica Readman
- Dr Rob Rijckborst

Perhaps of equal importance are the staff as they carry out the day to day running of IDDT and they are:

- Martin Hirst (CEO)
- Rita East (Database Manager)
- Tim Green (Assistant Database Manager)
- Matt Daybles (Post Room Operative)

The **WINNERS** of IDDT's lottery draws!

We are delighted to announce the winners of the draw of our monthly lottery for February 2017. They are as follows:

1st prize of £402.24
goes to Jeffrey from St Albans
2nd prize of £301.68
goes to Anon. from Bath
3rd prize of £201.12
goes to John from Bournemouth
4th prize of £100.56
goes to William from Tonbridge

Winners of the March 2017 draw are:

1st prize of £402.24
goes to Anon. from Swansea
2nd prize of £301.68
goes to Keith goes from Chippenham
3rd prize of £201.12
goes to Anon. from Bournemouth
4th prize of £100.56
goes to John from Birmingham

Winners of the April 2017 draw are:

1st prize of £421.44
goes to Anon. from Sandbach
2nd prize of £316.08
goes to Derek from Poole
3rd prize of £210.72
goes to Anon. from Bath
4th prize of £105.36
goes to Anon. from Middlebrough

Note: the winners of the draws for May, June and July will be announced in our September 2017 Newsletter and will be available on our website.

THANK YOU TO EVERYONE WHO JOINED IN IDDT'S LOTTERY.

If you would like to join in for just £2.00 per month, then give us a call on 01604 622837 or email tim@iddtinternational.org

Ways you can look after your feet

While correct professional help at the right time is essential for the care of your feet, there are ways to take care of them at home to help you to prevent problems arising. Here are just some ways that can be useful.

Diabetes - Friendly Socks

Our Comfort Socks have been developed for use by people with diabetes, vascular disorders and other circulatory problems. No elastic is used in the top of the sock, relying only on the gentle control of the rib for support. We also produce a Fuller Fitting Longer Sock for people who find it difficult to wear ordinary socks. These are made with a large circumference top and are suitable for people who may be suffering from oedema, for example.

Both socks come in a range of sizes

- The Comfort Sock comes in small [4-7], medium [6 1/2-8 1/2], large [9-11] and x-large [11-13].
- The Fuller Fitting Sock comes in small [4-7], medium [61/2-81/2], large [9-12].

Both are manufactured as a unisex sock from a high quality cotton blend. They both come in a range of colours - grey, navy, white, black and beige.

The Comfort Socks retail at £8, the Fuller Fitting at £12 per pair including p&p and can be purchased from our website shop, http://www.iddt.org/shop or by phoning IDDT on 01604 622837.

Flexitol

neuropad®

neuropad® can detect early complications of the feet which can lead to foot ulcers and even amputation. The test is completely painless and is an early warning system for your feet. Diabetes can result in the sweat glands not producing enough moisture, leading to dry and cracked feet.

A neuropad® is stuck to the sole of each foot like a small sticking plaster and left in place for 10 minutes. The pad is blue to start with and should turn pink in the presence of moisture from sweating. If the neuropad® patch stays blue, or if it turns a patchy blue/pink, this indicates that you may have some level of diabetic peripheral neuropathy and your sweat glands are not working properly.

Two test pads cost £14.99 and can be purchased from our website shop, http://www.iddt.org/shop or by phoning IDDT on 01604 622837.

Mediterranean diet protects against sexual dysfunction in men and women

A recently published 8 year study shows that the Mediterranean diet appears to have protective effects against the development and worsening of sexual dysfunction in men and women with Type 2 diabetes when compared with a low-fat diet. The Mediterranean diet was mainly plant based, low in carbohydrate and rich in largely vegetable sources of fat.

The study was part of the MEditerranean DIet and Type 2 diAbetes (MEDITA) trial run by the Second University of Naples. There were 215 people in the study who were given either a low-fat diet or the Mediterranean diet and they were followed up for 8 year and the results showed:

- 56% had a lower risk of developing either erectile dysfunction or female sexual dysfunction.
- Worsening of existing sexual dysfunction was improved in both men and women.
- The risk of worsening of erectile dysfunction was reduced by 59% and the risk of worsening of female sexual dysfunction was reduced by 50%.
- An earlier analysis of this trial showed that in addition to the above results, those on the Mediterranean achieved higher rates of long-term diabetes remission than those on the low fat diet. 'Diabetes remission' is when blood glucose levels are sufficiently well controlled that diabetes medication is not needed. (Diabetes Care, July 2016)

What is the Mediterranean diet?

Eating primarily plant-based foods, such as fruits and vegetables, whole grains, legumes and nuts; replacing butter with healthy fats such as olive oil and canola oil and using herbs and spices instead of salt to flavour foods.

Note: IDDT has a leaflet, 'Sexual dysfunction in men and women' and if you would like a copy, contact us on 01604 622837, email: enquiries@iddtinternational.org or write to IDDT, PO Box 294, Northampton NN1 4XS.

In addition - retinopathy risk may be lower with Mediterranean diet and extra virgin olive oil

People with Type 2 diabetes who eat a Mediterranean diet with extra virgin olive oil may be protected against diabetic retinopathy, but not diabetic nephropathy (kidney damage), compared to those who ate a Mediterranean diet with mixed nuts or those on a low-fat control diet. The findings were based on an analysis of 3,614 people between the ages 55 to 80. (Diabetologia, Sept 2015)

Injecting with an insulin pen

Nowadays, the majority of people with diabetes using insulin use pen injection devices but there are certain actions which should be maintained so that the correct dose of insulin is delivered.

Leaving the pen needle on

The pen needle should be removed immediately after each injection. Failure to do so could affect the dose of insulin administered because air can enter the cartridge and could also influence the sterility of the needle. So the pen and needles should be kept separately until you are ready to inject and then the needle should be removed.

Priming the pen

When injecting it is necessary to avoid any air being in the pen system, so the pen should be 'primed'. This means you should dial up two units on your pen and then press the button to shoot some insulin into the air to make sure it works properly, then dial up the exact dose you require.

Keeping the needle under the skin for 10 seconds

You should keep the needle under the skin for 10 seconds before withdrawing it. If you remove it too soon, then insulin may leak from the pen or from the skin which means that you are not receiving the required insulin dose.

Even after counting to 10, research has shown there may be a very small leakage after withdrawing the needle but this amount is minimal and does not appear to affect blood glose control.

Needle length

You should not inject into muscle and this can be avoided by using a shorter needle, such as a 4mm one. If you are using a 4mm needle, then you should inject directly into the skin at 90 degrees. If you use a longer needle, for example a 6mm needle, then you should pinch the skin and inject into the fold of the pinched up skin but you should release the pinch before removing the needle to avoid insulin leakage.

Prescription charges

From April 1st 2017, the NHS prescription charges went up by 20p from £8.40 to £8.60 for each medicine or appliance dispensed. The existing arrangements for prescription charge exemption continue as before and these include medical conditions like cancer, epilepsy and diabetes, pregnant women and new mothers, children under 16, anyone over 60 and those on a low income.

For people with long-term conditions that are not covered with this exemption, the cost of pre-payment certificates (PPCs) has been frozen for a further year. The 3 month PPC costs £29.10 and the annual cost stays at £104.00 for unlimited numbers of prescriptions during these periods.

Dental charges

The patient charges for NHS dental care in 2017/18 are:

- a band one course of treatment and urgent treatment will increase by 90p from £19.70 to £20.60;
- a band two course of treatment will increase by £2.40 from £53.90 to £56.30
- a band three course of treatment will increase by £10.60 from £233.70 to £244.30.

Bits and pieces from research

Identification of a marker for Type 1 diabetes

A group of Irish researchers has identified a biological marker present in people with newly diagnosed Type 1 diabetes which could predict its development. They found raised levels of a fatty acid, 12-HETE, in samples of blood taken from people who had recently been diagnosed but it was not present in people who had been living with the condition for longer.

This discovery means that this fatty acid could act as a biomarker for the onset of Type 1 diabetes, so if it is present before the onset of Type 1 diabetes, it could be possible to develop a screening test to speed up diagnosis or pick up those at risk of Type 1 diabetes. This would also have the advantage of reducing the likelihood of diabetic ketoacidosis (DKA) at diagnosis. Further research is planned to analyse samples from people who went on to develop Type 1 diabetes. (Diabetes Medicine, March 2017)

Lucentis given FDA approval to treat all diabetic retinopathy

Lucentis (ranibzumab) is a monthly injectable drug that was approved in the UK for the treatment of diabetic macular oedema in 2013. Diabetic macular oedema is a form of diabetic retinopathy which affects the macula - the part of the retina responsible for fine vision, such as reading.

The United States has had similar approval of Lucentis but in April 2017, the US Food and Drug Administration (FDA) approved Lucentis for the treatment of all forms of diabetic retinopathy in people with and without diabetic macular oedema.

In diabetic retinopathy new blood vessels grow on the retina and because these are weak they can leak blood (haemorrhages). Laser treatment has been the main treatment for diabetic retinopathy as it helps to prevent the growth of these new blood vessels.

The FDA gave the approval for Lucentis to be used for all forms of diabetic retinopathy after research compared Lucentis against laser treatment in 300 people with diabetic retinopathy. Lucentis was shown to significantly improve diabetic retinopathy, so the FDA has given approval for it to be used in all forms of diabetic retinopathy. Will the UK follow suit?

Adding sleep to the health agenda

Last year, the Royal Society for Public Health (RSPH) issued a report, 'Waking up to the health benefits of sleep' in which it reported that the UK is under-sleeping by an average of almost an hour every night. This amounts to a whole night's sleep over the course of a week.

In an RSPH poll of 2,000 adults, the public felt that getting enough sleep is the second most important activity for their health and wellbeing, ahead of such things as eating five fruit and vegetables a day, taking enough physical activity and sticking to recommended alcohol guidelines.

- Average sleep time is 6.8 hours, below the average of 7.7 hours people feel they need.
- More than half (54%) have felt stressed as a result of poor sleep.
- More than a third (36%) have eaten unhealthy food as a result of poor sleep.
- Almost four in 10 (37%) have fallen asleep on public transport.

The report highlights that poor sleep and sleep disorders have an impact on our ability to lead a healthy lifestyle and are associated with a range of diseases such as cancer, diabetes, heart attack and depression.

So worth thinking about our sleep as well as all the other things associated with managing our health and diabetes.

Why people who are not overweight may be at risk of Type 2 diabetes

A study involving nearly 200,000 people has shown that differences in body fat storage may influence the risk of Type 2 diabetes and heart disease. Insulin resistance

may develop if the body is unable to store fat correctly and this can cause blood glucose levels to rise so increasing the risk of Type 2 diabetes and heart disease. The researchers found that particular genetic variations were associated with insulin resistance and this could offer an explanation of why some people who are not overweight can be at higher risk of Type 2 diabetes.

Higher levels of these genetic variants were also linked to familial partial lipodystrophy in Type 1 diabetes, a condition that causes severe insulin resistance and loss of fat tissue. (Nature Genetics, November 2016)

Enteroviruses may trigger an autoimmune process against insulin-producing cells in the pancreas

Enteroviruses may play a role in the development of at least some cases of Type 1 diabetes. A study involved 129 children who tested positive for multiple islet autoantibodies (case children) and 282 similar children without the autoantibodies (control group). Researchers tested 1,673 stool samples from the case children, and 3,108 from the control group and found:

- Infections in 108 case children and 169 children in the control group.
- The excess of infections in the case children occurred more than 12 months before the first positive autoantibody was seen, suggesting that the autoimmune process starts several months after the infection. (Diabetologia, January 2017)

Insulin treated pilots

Research carried out by the Royal Surrey County Hospital and the Civil Aviation Authority (CAA) evaluated a programme that oversees insulin-treated pilots in the UK. From 2012, the UK issued Class 1 Medical Certificates for Commercial Pilot Licences to people with diabetes using insulin under strict requirements, including blood glucose monitoring before and during flights which are overseen by the CAA and the Irish Aviation Authority medical departments.

In the research all insulin treated pilots with a Class 1 Medical Certificate had their files examined and this showed:

- For short and medium haul flights, 96% of 7,829 blood glucose readings were within 5 to 15mmol/l as well as 97% of 1068 readings for long haul flights.
- A total of 22 (0.02%) readings were less than 4 or greater than 20 mmols/l on all flights, but most of these readings were pre-flight readings.

There have been no reports of any pilots being classed as medically unfit due to high or low blood sugars but the researchers said there is a need for careful monitoring as working long hours can disrupt eating patterns. If they are unable to test due to operational duties, then they should eat 15gms of carbohydrate then test in 30 minutes.

Night shift workers with Type 2 diabetes have poorer control

Research carried out in Thailand has shown that people with Type 2 diabetes who work night shifts have poorer blood glucose control than people who work in the day or who don't work at all.

Previous studies have shown that people who work unsociable hours are at a higher risk of developing Type 2 diabetes but this study went further. The researchers looked at the medical records of 260 people with Type 2 diabetes, 62 of whom worked nights, 94 worked in the day and 104 did not work at all. The results showed:

- Night shift workers had an average HbA1c of 66.1mmol/mol (8.2%).
- People working in the day had an average HbA1c of 59.6mmol/mol (7.6%).
- Unemployed people had an average HbA1c of 58.5mmol/mol (7.5%).

Night shift workers also had less sleep, ate more calories and had a higher body mass index (BMI) than the other two groups.

This highlights that for people who work night shifts it is more difficult to control their blood sugars and they need to pay special attention to healthy eating and regular exercise. (Presented at the Endocrine Society's 99th meeting in Orlando)

NHS England reviews prescription items

From April 2017, NHS England will be leading a review of low value prescription items and introducing new guidance for Clinical Commissioning Groups (CCGs) with a view to saving money. The intention initially is to develop guidelines for around 10 medicines which can be purchased over-the-counter instead of being prescribed on the NHS. It is estimated that this could save £128million per year. Some possible examples are: treatment for coughs and colds, antihistamines, indigestion and heartburn medication and sun cream.

Next steps on the NHS Five Year Forward View

Since the last Newsletter, the future plan for the NHS has been announced. It sets out key areas which could affect us all at some time.

- Improved cancer care aimed at saving an extra 5,000 lives a year through new one-stop testing centres, screening programmes and state of the art radiotherapy machines.
- Boosting mental health services by increasing beds for children and young people to cut out of area care, more beds for new mothers and more mental health professionals in the community and hospitals to prevent crisis admissions.
- Better access to GP services with extended opening in the evenings and weekends, newly designated 'Urgent Treatment Centres' and an enhanced 111 service to ease pressure on A&Es.
- Better care for older people by bringing together services provided by GPs, hospitals, therapists, nurses and care staff, cutting emergency admissions and time spent in hospitals.

Proposed funding cap on NHS treatments

A new system is being introduced by NHS England whereby new health treatments which are expected to cost £20 million or more could be put on hold while the price of the drug or the numbers of people receiving it are considered. It is estimated that this could affect 1 in 5 new treatments in the NHS.

This could affect the lives of people with diabetes as there are millions of people with the condition so it will be easier to reach the £20 million cap. For example, if Lucentis, the drug used to treat macular oedema (a form of diabetic retinopathy), had been introduced under this system, it would have been put on hold, so denying people possible sight-saving treatment.

Diabetes care for children and young people in Wales is improving

The Annual Statement of Progress for Diabetes for Wales shows that the number of children and young people with Type 1 diabetes achieving blood glucose in the target range has increased from 17.8 % (2014-15) to 27.2% (2015-16). The number of those with high blood glucose levels reduced from 21.6% (2014-15) to 18.6% (2015-16). The rates of young people undergoing essential key care processes such as foot and kidney checks have also improved.

More on gluten-free foods

On March 31st, the Department of Health launched a consultation on the prescribing of gluten-free foods following an announcement of new guidance on prescribing low value items, such as travel vaccines, painkillers, and gluten-free foods.

The consultation will consider ending the prescription of all gluten-free foods in primary care, estimating a saving of £25.7 million a year for the NHS with a further £10 million saving by patients no longer needing GP appointments for their gluten-free prescriptions.

Staple gluten-free foods, such as bread, flour and pasta, have been available on prescription to people with coeliac disease from the late 1960s. However, many gluten-free foods are now sold in many supermarkets, so it is argued that it is now much easier to buy a wider of gluten-free foods which are cheaper than the price the NHS pays for them.

Many Clinical Commissioning Groups (CCGs) have already stopped providing gluten-free foods on prescription. The outcome of the consultation is meant to provide a national approach to create consistency across the country but what happens to CCGs that have stopped prescribing them, if the consultation says that they should remain available?

NHS Counter Fraud Authority (NHSCFA)

This is a new organisation established as an independent Special Health Authority from July 2017 to tackle fraud, bribery and corruption within the NHS in England. It is claimed that fraud can cost the NHS millions of pounds each year and the NHSCFA intends to ensure that NHS funding is directed to front line patient care and not in the pockets of those who seek to divert NHS funds for their own use.

What are the fraudulent actions?

- Prescription fraud costs the NHS £217 million each year – some people falsely claim to be exempt from the £8.60 prescription charge.
- Dental fraud costs around £73 million a year - some dentists claim more money than they are entitled to receive for work carried out.
- Individual fraud, for example, an NHS financial manager was found guilty of defrauding the NHS of more than £2 million by manipulating the payment systems at two Primary Care Trusts under his control. He set up Standing Orders to his individual accounts.

Two in five patients are put off seeing a GP by practice receptionists

The results of a survey of 2,000 people in the UK have shown that 2 out of 5 patients are put off booking an appointment with their GP by having to tell the receptionist their symptoms.

- 40% dislike having to talk to the receptionist about their symptoms, especially women.
- 42% would not see their GP because of difficulty in getting an appointment with a particular doctor or at a convenient time.
- People from a lower socio-economic background were more likely to report a number of emotional barriers such as worrying about what the GP might find, having tests and talking about their symptoms. This group were also likely to be put off if they could not see a particular doctor.
- In all the groups, 35% were put off by not wanting to be seen as someone who makes a fuss.

The GP Forward Review promises £45million on nationwide training for receptionists and clerical staff, so hopefully this will improve the situation. (Journal of Public Health, October 2016)

Shortage of DSNs

A survey by Diabetes UK has shown that diabetes specialist nurses' (DSNs) posts are being cut out or downgraded in many areas, yet the number of people with diabetes has increased by 72% in just over 10 years. To add to the problem, 60% of the existing DSNs are due to retire within 10 years. The result of the workforce shortage is that many nurses are not able to offer the service they would like for their patients - people living with diabetes.

PARENTS PART

National Paediatric Audit for 2015/16

This is an audit of the services given to children and young people with both Type 1 and Type 2 diabetes in England and Wales treated in paediatric diabetes units. It is a long report but there are some key findings of interest, especially for Type 1 diabetes.

There were 2,834 children and young people aged 0 to 15 years old diagnosed with Type 1 diabetes in 2015/16. The prevalence of Type 1 diabetes in children and young people aged 0 to 15 years old in England and Wales in 2015/16 was 195.4 per 100,000 of the general population and higher amongst males than females. There has been a year on year increase in the incidence of Type 1 diabetes with the greatest increase amongst females

Completion of health checks

- Almost all children and young people with Type 1 diabetes had an HbA1c and a BMI recorded but only two thirds of young people aged 12 and above had a foot check (65.8%), a retinopathy screen (66.2%) or urinary albumin screen (66.0%) recorded.
- Only just over a third of young people aged 12 and above with Type 1 diabetes completing a year of care received all the recommended key care processes for this age group in 2015/16.
- There was significant variation in the percentage of young people aged 12 and above with Type 1 diabetes completing a year of care who received all key care processes per unit, ranging from zero to nearly 100%.
- Fewer than half (48.3 %) of children and young people with Type 1 diabetes had four or more HbA1c measurements recorded in the year.
- Around two thirds of children and young people newly diagnosed with Type 1 diabetes were screened within 90 days for coeliac or thyroid disease.

Blood glucose control (HbA1c)

- There has been an increase in the percentage of children and young people with Type 1 diabetes achieving good control (HbA1c levels less than 58 mmol/mol or 7.5%) from 23.5% in 2014/15 to 26.6% in 2015/16. There was an expected reduction of children and young people with Type 1 diabetes with poor control (HbA1c greater than 80mmol/mol or 9%) from 21.3% to 17.9% during the same years.
- There were differences in HbA1c target outcomes associated with age, deprivation, gender and ethnicity with poorer outcomes in children and people if they lived in deprived areas, were of non-white ethnicity, were adolescent, or female.

Complications

- Albuminuria was found in 9.7% of young people aged 12 years and above screened in the audit year. The risk of albuminuria was increased amongst older young people with Type 1 diabetes, and amongst those living in the most deprived areas.
- Abnormal eye screening results were found in 13.8% of young people aged 12 and above. Older young people with Type 1 diabetes were at increased risk of eye disease, with 20.5 % of 17 year olds screened having an abnormal screening result compared to 6.4% of 12 year olds. Again, those living in deprived areas were at greater risk of eye disease.
- High blood pressure (hypertension) was found in just over a quarter of young people aged 12 years and older with Type 1 diabetes screened in the audit year.
- A fifth of young people aged 12 years and older with Type 1 diabetes screened had a total blood cholesterol level greater than the target of 5 mmol/L or less.
- 16.4% of children aged 0 to 11 years with Type 1 diabetes and a recorded BMI were overweight, and 16.5% were obese. These figures rose to 18.1% and 20.8%, respectively, for those aged 12 years and above.

Outcomes of psychological assessment

30% of children and young people with Type 1 diabetes screened within the audit period required referral and were seen by expert CAMHS/psychology services in 2015/16.

Comments

It is a worrying situation that only a third of children and young people receive the health checks recommended for this age group. It is also difficult to understand why this is the case, especially as those in the audit were treated in paediatric diabetes units. IDDT encourages adults with diabetes to make sure that all the key checks are carried out, so perhaps parents should do the same?

It is good to see that the numbers of children and young people being checked for coeliac and thyroid diseases is increasing and that there is greater awareness of the need for psychological assessment.

However, there are major concerns for the services and care of children and young people in deprived areas, those of non-white ethnicity, adolescents and female. Clearly, there needs to be emphasis on providing better services to these groups.

Restrictive diets in children

It seems to be fashionable for people to adopt popular dietary trends and some parents may adopt these for the whole family, including their children. These diets include raw, clean, gluten-free and vegan but they could have adverse effects on the nutrition intake of children.

Suspected food allergies

Research suggests that self-diagnosis of food allergies or intolerances should be properly diagnosed by health professionals to make sure that children's diets provide the nutrients that they need. Parents' fears about increasing food allergies or intolerances can result in the inappropriate use of commercially available tests and the elimination of major food groups from their children's diets.

Gluten-free diets

Gluten-free diets are essential for children (and adults) with coeliac disease for their health and to prevent long-term complications. However for children who do not have celiac disease or wheat allergy, there is no evidence that restricting gluten has any clinical benefit. Parents need to be aware of this and also that some gluten-free packaged foods contain more fat and sugar than gluten-containing foods.

Vegan diets

Properly planned vegetarian and vegan diets can be nutritionally adequate. However, studies have suggested that a vegan diet can provide a higher intake of some nutrients, such as fibre, vitamins C and E and folate, but lower quantities of others, such as vitamin B12 and D, calcium, zinc, and long-chain n-3 fatty acids compared with diets containing meat and fish.

Children have greater nutrition needs

Children have greater nutrition requirements for their body weight than adults so they will be more susceptible to nutrition deficiencies from restricted diets. In addition, such diets can make children feel more socially isolated.

Children are not small adults and strict dietary restrictions can have serious consequences. If parents do want to eliminate certain foods, such as meat, dairy or gluten-containing foods, they should talk to a health professional about how to replace these foods. (The British Nutrition Foundation, March 2017)

SNIPPETS

Long-term outcome in people with morbid obesity and Type 1 diabetes undergoing bariatric surgery

Bariatric surgery in people with Type 1 diabetes and obesity mainly provides benefits of weight reduction, insulin requirements, obesity comorbidities and some benefits in diabetes complications, but might have only minimal effect on the glycaemic control in the long term. (Obesity Surgery, October 2016)

Study suggests dentists should screen some patients for diabetes

Findings from a study suggest that dentists could help patients get early treatment if they screen periodontitis patients for diabetes and/or the risk of developing Type 2 diabetes. More than 18% of patients in the study with severe gum disease had undiagnosed diabetes, and nearly 10% of patients with mild to moderate periodontitis were found to have diabetes, compared with 8.5% of the control group. (BMJ Open Diabetes Research and Care, 22 February 2017)

Transforming the health of Wales

HealthWise Wales is carrying out the largest research study of its kind ever to have been undertaken in Wales. HealthWise Wales aims to recruit 260,000 people aged 16 and older to volunteer to take part. This involves being asked a series of questions which will help researchers to better understand the health of the people of Wales and the information collected will be used to help the NHS plan for the future.

Discrimination, overweight and exercise

A study of adults in England found people who said they were discriminated against because of their weight were 60% more likely to be inactive, compared with those who were not discriminated against. The study also found that regardless of their weight, people who felt discriminated against were less likely to exercise. (Livescience.com, March 10th 2017)

Young people with diabetes want more mHealth tools

A study in New Zealand of young people with Type 1 diabetes showed that they would prefer to receive SMS text messages to manage their diabetes. However, another survey showed that only a third used smartphone apps to treat and manage their diabetes and that 21% of 74 respondents between 16 and 24 years said they want more than one message per day. (Journal of Medical Internet Research, March 6, 2017)

Extra benefits from outdoor exercise

Studies suggest there may be additional benefits for exercising outside compared with inside, such as lower blood pressure, better mental health and increased production of natural cancer-fighting cells. One study found people spent more time exercising when they were outdoors and another showed people felt more energised when they exercised outside compared with indoors.

A link between climate change and Type 2 diabetes?

Scientists have been warning that rising global temperatures may have devastating effects on weather events, the spread of infectious diseases and even food shortages. Now researchers are looking at whether climate change might be linked to Type 2 diabetes. Between 1996 and 2009 temperatures rose across the US and so did the prevalence of Type 2 diabetes. (BMJ Open Diabetes Research and care, March 2017)

Diabetes in China

The prevalence of Type 1 and Type 2 diabetes in China has increased from 0.9% in 1980 to 11.6% in 2010 and now China has the largest number of people with diabetes in the world - 100 million people with diabetes and this is continuing to grow. China's health system cannot cope effectively as the treatment still heavily relies on being provided in large hospitals as primary care (GPs) is still under-developed. Screening programmes for prevention of Type 2 diabetes are lacking and the quality of care of those with diabetes is fragmented and largely inefficient.

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