



Glad to be in touch again!

IN THIS ISSUE...

Looking after kidneys • Learn more about your thyroid •
What's New • Suspected adverse reactions • and more...

This has been, and still is, a difficult time for all of us and I don't think there are any exceptions to this. The Trustees and staff of IDDT hope that you have coped and stayed well but our thoughts are also with those who have suffered as a result of Covid-19.

As instructed by Government, IDDT offices had to close in March with a couple of us working from home but we were very aware that we could not offer our usual services. For this we are sorry, although we are sure that you understand.

Aware that people have been unable to have their routine health checks, we reminded them of ways to look after themselves by downloading booklets from our website, especially 'Looking After Your Feet', 'Diabetes – Everyday Eating' and 'Diabetes and Exercise'. We are always conscious of the fact that not everyone has internet access, so we had a phased return to work on May 18th and we are now able

to send you the booklets and information you need, albeit a bit slower than usual!

Having said this, one important message that we must give out is that if you develop health problems or difficulties coping with your diabetes unrelated to Covid-19, call your GP surgery, diabetes team or NHS 111 and A&E departments are open. The staff are there for you.

What cannot be avoided is that as Trustees, we have to consider the future of IDDT, just like any other business or organisation faced with an uncertain economic future. While other diabetes charities have been sending out appeals for donations, we have not done so because it felt insensitive at a time when people were very generously donating to help to deal with the pandemic. Nevertheless, we will have to look carefully at our plans for the future, cut back where we can and rely on your generous support, where you can. We fully realise that some people may find

it difficult or impossible to make a donation when renewing their membership, so I would remind you that membership of IDDT is FREE but we always welcome donations.

Undoubtedly, there will be a 'new norm' after the worst of this is over. We have all learned lessons and we hope they will be remembered when the new norm arrives – what is really important in life, the sense of community, the kindness shown to each other and to those in need of help. Our thanks and appreciation go to all those working in our NHS, to people working in social care and to all the other people who have kept things running for us during this time. I have always tried to keep the Newsletters free from politics but on this occasion, I have to say that I hope this has made the Government truly appreciate the NHS, the Health and Social Care sector and all those who work in these services and that this will be shown to them in the future.

Covid-19 & diabetes

Ahead of publication of research, NHS England published statistics about the effects of Covid-19 on people with diabetes, outcomes and death rates. Needless to say, this was taken up by the press and other organisations in ways that some could class as scaremongering. IDDT clarifies the position:

Type 1 and Type 2 are different conditions, so the people with the two conditions are affected differently.

If people with diabetes follow the social distancing guidelines, stay 2 metres away from anyone else, wash their hands frequently and avoid touching their face, then the risk of catching Covid-19, is very much the same as for the general public.

It is important to remember that the overall risk of dying from Covid-19, for people with or without diabetes, is very low.

The strongest risk factor for dying of Covid-19 is age and people with Type 1 diabetes on average are younger than people with Type 2 diabetes.

NHS England state that it is thought that the risk to people with diabetes from the Covid-19 virus is in line with the extra risk seen in other infectious conditions, such as pneumonia. Again, this extra risk especially applies to people with either type of diabetes who had pre-existing kidney disease, heart failure and previous stroke.

People with either type of diabetes who have higher glucose levels and obesity are at higher risk. But to put this in perspective, this is not really news because people with diabetes, especially Type 1 diabetes, generally are aware that any infection can affect their blood glucose control.

Actions!

Video consultations and online appointments, as well as routine discussions with GPs are part of a range of measures that the NHS has adopted to ensure that diabetes care can continue

throughout the pandemic.

There will be a dedicated helpline for advice set up with Diabetes UK and the NHS and online tools to help people manage their condition.

Remember!

The NHS press release also reminds people who are concerned about their diabetes to contact their GP Practice (or 111 out of hours) or Diabetes Team. If you are very unwell, then call 999.

WHAT'S NEW?

Accu-Chek Aviva test strips are available

There have been rumours that the Accu-Chek Aviva glucose test strips may be discontinued but the manufacturer, Roche, has confirmed that they are NOT being discontinued.

Every month an estimated 75,000 people in the UK and Ireland use the Accu-Chek Aviva strips every month to monitor their blood glucose to help them manage their diabetes.

Roche have stated: "Those who use the Aviva strip can be assured that we will continue to produce them and that they can be purchased without prescription, if necessary (from a reputable source). Accu-Chek Aviva strips can also be purchased from selected Boots pharmacies and online outlets, such as Boots.com in a pack size of 10 or 50 strips."

Another use for Type 2 drug

AstraZeneca's Type 2 diabetes drug, Forxiga, has become the first in its class (SGLT2 inhibitors) to receive approval in the US as a treatment for heart failure. The approval was given to reduce the risk of cardiovascular death and hospitalisation for heart failure in certain people regardless of whether or not they have diabetes.

Heart failure affects about 64 million people worldwide with about half of them having a subtype known as reduced ejection fraction and it is for use in this group that Forxiga was approved. A normal ejection fraction is more than 55% which means that 55% of the total blood in the left ventricle of the heart is pumped out with each heartbeat. Heart failure with reduced ejection fraction happens when the muscle of the left ventricle is not pumping as well as normal and the ejection fraction is 40% or less.

This approval widens the use (and therefore increases sales and profit) of this drug and is part of the move for pharmaceutical companies to investigate other uses for already approved drugs.

This coin-sized smart insulin patch could monitor glucose for diabetes management

Researchers in three US universities have developed a smart insulin-delivery patch that has the potential to monitor and manage glucose levels in people with diabetes and to deliver the necessary insulin dosage.

The adhesive patch monitors blood sugar and has doses of insulin pre-loaded in tiny microneedles on the patch to deliver the insulin quickly when glucose levels reach a certain level. The microneedles are made with a glucose-sensing polymer that is enclosed with insulin. Once the patch is on the skin, the microneedles penetrate under the skin and start to sense glucose levels. If there is a change in glucose, the polymers on the patch release insulin through the microneedles, which are less than 1 mm in length. The microneedles penetrate a half-millimetre below the skin.

Research has been conducted in mice and pigs and was successful in mice. If successful, the smart patch will take away the need to constantly check blood sugars and then inject insulin when needed. The insulin delivery slows down once it detects glucose levels are back in a normal range.

The adhesive small patch can be easily manufactured for once-a-day use and the researchers are now applying to the FDA for clinical trials in humans. (Nature Biomedical Engineering, February 2020)



Is there going to be a new test for earlier detection of glaucoma?

A sponsored clinical trial from University College London has suggested that a new test using artificial intelligence (AI) can detect very early signs of glaucoma progression up to 18 months earlier than by present methods.

The test, called DARC (Detection of Apoptosing Retinal Cells), involves injecting a fluorescent dye into the bloodstream via the arm which then attaches to retinal cells. This illuminates those cells that are in the process of apoptosis (a form of programmed cell death) and these damaged cells appear bright white in eye examinations. The more damaged cells that are detected, the higher the DARC count.

Apparently, one of the difficulties with evaluating eye diseases is that specialists often disagree when viewing the same scans, so the researchers have incorporated an AI algorithm into their method.

In the trial AI was used to assess 60 of people, 20 with glaucoma and 40 healthy control people. The AI was initially trained by analysing the retinal scans after injection of the dye in the healthy people and was then tested on the glaucoma patients. The lead researcher said that what is really exciting, and unusual, when looking at biological markers such as this, is that there was a clear DARC count threshold above which all glaucoma eyes went on to progress. (May 2020)

Along similar lines, a Finnish team of researchers have found that using AI can allow accurate diagnosis of diabetic retinopathy and macular oedema. The machine is also able to detect the severity grade of diabetic retinopathy.

The study suggests that this system is far more cost-effective and could lead to speedier diagnoses in screening and diagnosing people with diabetes-related eye problems.



Pump users will be pleased!

A new recycling scheme has been introduced in the UK by Roche Diabetes Care to reduce waste. The company plans to go green wherever possible to help to meet the NHS target to become carbon neutral by 2030 and is piloting various ways of doing this.

This includes a recycling scheme for Tyvek plastics and changing some types of packaging. The plastic film covering plastic trays carrying cannulas and tubing for insulin pumps sent out by Roche is made from Tyvek which is only recycled by specialist centres. In February 2020, they announced that pre-paid envelopes to send Tyvek to a recycling centre are available on request to anyone ordering supplies for their Accu-Chek insulin pump and they will monitor the feedback from the first 1,500 people to use the scheme.

Collaboration to offer personalised insulin delivery

Abbott and Insulet have formed a partnership to integrate Abbott's FreeStyle Libre and Insulet's Omnipod Horizon, a tubeless insulin delivery pod, to provide an automated insulin delivery system for people with diabetes.

As we are aware, the FreeStyle Libre enables people to continuously measure their glucose levels. This information will be sent directly to the insulin pod which has an algorithm to automatically adjust insulin delivery without the need for an additional device or any connection or tubing. It is able to hold up to 200 units of U-100 insulin.

Coming soon to your smartwatch: CGM for healthy adults?

Continuous glucose monitors (CGM) have had a huge impact on diabetes care with the first for personal use being approved in the US in 2005. Since then improvements in glucose sensor accuracy, smaller sensor size and ease of use have made it easier than ever for people with diabetes to monitor their glucose trends in real time.

Now in the US, Fitbit, Apple and Google and many other smaller companies are all reported to be investing in CGM technology aimed at adults without diabetes.

Industry believes that people without diabetes “are hungry for objective data and feedback about what they are eating and doing and how it is actually affecting their health.” One could say, ‘well they would wouldn’t they’ as there is money to be made!

However, a study published in April in The Journal of Clinical Endocrinology & Metabolism,



said there is limited information on CGM-measured glucose concentrations for people without diabetes. Not enough is known for how high or low glucose levels go in healthy people so it is not clear what CGM results would mean for those without diabetes or what action they should take.

Is this another case of encouraging the worried well? Surely, the most important thing is to make this technology affordable for people with Type 1 and Type 2 diabetes to ensure that they have the best possible care and treatment.

First liquid metformin in the US

Sun Pharmaceuticals in the US has released the first liquid form of extended release metformin for people with Type 2 diabetes who are 10 years and older, in addition to diet and exercise. It is the only liquid form of metformin that has been approved by the FDA. (February 2020).

Crowd funding app

A health tech company, Quin, aims to raise £600K through a crowdfunding platform launched in February, to develop an app to help people to decide when and how much insulin to take. The company has raised £2 million to date and has recruited hundreds of beta testers and has also filed for two patents. The app aims to use the knowledge and experience of people who take insulin to create a more personalised insulin treatment regime. It uses a machine learning algorithm trained on information from existing diabetes-management devices, sensors and phones to help people decide how much insulin is right for them and when best to take it.

IDDT's Annual Event - 17.10.20

POSTPONED

In our March Newsletter, we announced that this year we would hold our annual event on October 17th 2020. Due to the coronavirus situation, we felt that the best course of action was to postpone the event until 2021. Therefore, we have re-booked it for Saturday April 17th 2021. The venue and programme will remain the same and we hope that many of you will be able to join us.

SUSPECTED SIDE EFFECTS

In February the Medicines and Healthcare products Regulatory Agency (MHRA) launched a week long social media campaign to raise awareness about the importance of reporting suspected side effects using the Yellow Card Scheme.

The week focussed on polypharmacy, defined as the simultaneous use of four or more medicines (prescription, over-the-counter or traditional medicines) at the same time. Polypharmacy can increase the likelihood of a patient having side effects, medication errors, as well as the risk of interactions between medicines and foods or herbal products.

People with Type 1 and Type 2 diabetes or other long-term chronic conditions often routinely use multiple medicines at the same time. Polypharmacy is also common in older people with studies showing that a third of people over 75 years old take at least 6 medicines a day and over one million people take 8 or more medicines a day.

Reporting side effects by health professionals and patients is important to keep medicines safe. You don't have to prove that a medicine or medicines are the cause of the symptoms you are having, you only have to suspect they could be the cause.

How to report a side effect

There are 3 ways to complete a Yellow Card:

- Use the online Yellow Card form at www.mhra.gov.uk/yellowcard
- On a Yellow Card form found in pharmacies and GP surgeries
- Call the Yellow Card freephone on 0808 100 3352

Coping with... DIABETES BURN OUT

As we know, diabetes is 24 hour a day, 365 days a year condition and can lead to daily stress, especially for those taking insulin. This stress is often referred to as 'diabetes burnout' and it is when people are mentally and physically exhausted and can feel detached from their diabetes and not interested in self-care. Many people can have burnout, even those who have had diabetes for years and years.

According to recently published research, burnout can last for hours, days and sometimes weeks, months or even years. The main signs of burnout were:

- exhaustion, both mentally and physically,
- detachment – a feeling of detachment from their identity as someone with diabetes, for example, not wanting to have diabetes or think about diabetes any more.
- constant self-care and failure to achieve target blood sugars – having to test all day when other things are going on and low blood sugars at inconvenient times.

Comments made by health professionals and psychologists were that burnout is almost unavoidable. No one asks for diabetes, sometimes it's out of your control and it can be difficult when it feels like everyone is telling you what to do.

Ways of recovery from burnout

- Recognise the distress that occurs before burnout and ask for help from your health professional, a simpler regime may help. Other alternatives could be coming off the pump for a week and doing injections, relaxing your tight control for a few days or again for a few days, eating food you don't normally allow yourself.
- Try not to feel guilty when targets are missed, nobody is perfect all the time, so relax a little.
- Support from family, friends and/or health professionals,
- Try to maintain a positive attitude which could be reminding yourself of good things, such as seeing your children growing up or getting to see new things.

(American Journal of Nursing December 2019)



Looking after your kidneys

An Australian study has shown that adherence to a healthy dietary pattern was associated with a lower incidence of both chronic kidney disease (CKD) and albuminuria. Observational evidence supports the association between healthy dietary patterns and the prevention of major health conditions, including Type 2 diabetes, cardiovascular disease, hypertension and metabolic syndrome but it is unclear whether a healthy dietary pattern may prevent CKD.

This research looked at whether there was an association between dietary patterns and CKD by conducting a meta-analysis of 15 studies which included 630,108 adults without CKD at the beginning of the studies. They were followed for an average of 10.4 years. A healthy diet was defined as one of higher intake of vegetables, fruit, legumes, whole grains, fish and low-fat dairy while an unhealthy diet included higher intakes of red and processed meats, sodium and sugar-sweetened beverages.

The results were as follows:

- a healthy dietary pattern was associated with a 30% lower odds of CKD and a 23% lower odds of albuminuria.

There are different healthy eating patterns so it was difficult to establish which type of 'healthy' eating was the most beneficial. Nevertheless, the researchers concluded that following healthy dietary pattern may play a protective role in the prevention of chronic kidney disease. (Clin J Am Soc Nephrology, September 2019)

If you would like IDDT's leaflet about diabetes and kidneys, just call on 01604 622837 or email enquiries@iddtinternational.org

***Worth a note...* Coffee may reduce the risk of kidney disease**

Research at Southampton University suggests that coffee consumption may provide a beneficial effect on kidney function and reduce the risk for developing chronic kidney disease (CKD). In addition, drinking an extra cup of coffee per day was associated with a protective effect against CKD and albuminuria.

They suggest that the active ingredients in coffee that may provide these effects remains unknown and suggested that non-caffeine chemical constituents may play a role. They also suggest that as many people drink coffee worldwide, even a small effect on reducing the risk of developing chronic kidney disease would have large implications.

And more on coffee.....

A study has found that drinking four cups of coffee a day did not show any significant change in insulin sensitivity or fasting plasma glucose in adults when compared with a placebo beverage. However, according to the researchers, compared with the placebo group, people in the coffee group experienced fat loss and reduced urinary creatinine concentrations. (American Journal of Clinical Nutrition, January 2020)

Some of these news items were announced prior to the Covid-19 pandemic but they are interesting nevertheless.

GP Connect introduced to all GP practices and specialist care centres

NHS Digital and NHSX have announced GP Connect has been introduced to all GP practices to support the secure sharing of patient records across primary care. GP Connect allows the sharing of appointments across GP practices and NHS 111 to book appointments at appropriate surgeries and specialist centres.

They have also announced additional information will be added to the Summary Care Record during the Covid-19 pandemic and this will be available to a wider group of authorised, registered and regulated health and care professionals.

Patients will now be able to have appointments booked at practices other than where they are registered as well as at a number of different healthcare settings. However, for this system to work in practice and patients be treated safely, their new doctors will need to have swift access to medical information, such a previous medical history or medications prescribed.

These changes will only be in place for the duration of the Covid-19 emergency period and will revert back afterwards. (April 24th 2020)

NHS Community Pharmacist Consultation Service passes 100,000 referrals milestone in 10 weeks

The Community Pharmacist Consultation Service, launched by NHS England and NHS Improvement in October 2019, allows NHS 111 advisors to refer patients with minor illnesses to their local pharmacist for assessment and treatment.

Over 100,000 patients with minor illnesses or urgent medication needs have received same-day pharmacist referrals through this service and directed via 111. Department of Health and Social Care figures issued in January 2020 show that:

- 10,600 pharmacies have registered to provide the service since October 2019
- 114,000 patients have benefitted from referrals to pharmacists via the CPCS.
- There were 64,067 requests for urgent medication, for conditions such as diabetes or asthma and clinical advice was given to 50,208 people with a minor illness, such as sore throat or earache.

It's good to know - new diabetes inpatient guidance in response to Covid-19

Guidance on ensuring that basic and secure diabetes services are maintained during the coronavirus pandemic has been published by the National Inpatient Diabetes Covid-19 Response Group. This Group, chaired by Professor Gerry Rayman MBE, has been set up to support diabetes teams in their reorganisation.

It first published 'Concise Advice on Inpatient Diabetes (Covid-19: Diabetes) Front Door Guidance' and the latest two documents are:

- Template for defining diabetes services during Covid-19 Pandemic
- Maintaining Acute Diabetes Services in response to Covid-19.

The Group has also provided guidance on managing hyperglycaemia and DKA in hospitalised people with diabetes during the pandemic.

Also published has been 'Guidance for Covid-19 among people with diabetes living in care homes'. The Group developing this was Co-Chaired by Professor Alan Sinclair who founded Diabetes Frail, it includes the recommendations that care home residents:

- receive plenty of oral fluids to maintain good hydration,
- maintain a daily appropriate exercise and nutritional plan with regular meals,
- continue to receive their usual diabetes treatment and regular, twice daily capillary blood glucose tests are carried out.

All these documents are for health professionals involved in delivering and redesigning diabetes services during the pandemic and for the foreseeable future. It is reassuring for people with diabetes to know that this is happening. (April 2020)

Record high - two million people at risk of Type 2 diabetes

According to NHS England, around two million people registered with a GP in England are at risk of developing Type 2 diabetes. These figures are the highest ever recorded and likely to get worse as obesity increases.

This group have non-diabetic hyperglycaemia (where the blood glucose levels are at the high end of normal but not in the diabetes range). This included 115,000 younger people with Type 2 diabetes or at risk of developing it.

The NHS action to combat this includes the Diabetes

Prevention Programme which identifies people at high risk of diabetes and supports them in living a healthier lifestyle. Plans include very low-calorie diets that have been shown to reverse Type 2 diabetes in recently diagnosed people. This is a radical liquid diet of just over 800 calories a day for 3 months followed by 9 months of support to maintain their weight loss and it is expected that many of these people will go into remission. These plans were intended to be rolled out by the NHS to 5,000 people from April 2020.

New £10 million scheme to develop new technologies

The Government launched a £10 million scheme with the aim of supporting researchers in life sciences to work in collaboration with industry to develop new technologies and techniques to help NHS patients.

It will include developing new healthcare wearable technologies such as smartwatches and monitors, diagnostic devices like mobile health units and new personalised medicines based on patients' genetic information.

The Government also announced 6 new locations that have been awarded the status of Life Science Opportunity Zone (LSOZ) to help to raise their profile nationally and internationally. Experts in these Zones will have government support to promote their life sciences parks to attract investment from national and international businesses.

NHS England have serious concerns about homeopathy

In a letter written to the Professional Standards Authority (PSA) about the possible reaccreditation of the Society of Homeopaths, Simon Stevens, CEO of NHS England, stated, "In response to your current consultation, we are writing to register serious concerns about the Professional Standards Authority's possible reaccreditation of the Society of Homeopaths. While the Society of Homeopaths may appear to meet some of the PSA's procedural standards, the basis of their practice remains fundamentally flawed. Homeopathic remedies were not scientifically validated and recommended to treat any health conditions".

He added that he believed homeopathy was no replacement for tried and tested medical treatments. "Anything that gives homeopathy a veneer of credibility risks chancers being able to con more people into parting with their hard-earned cash in return for bogus treatments which at best do nothing, and at worst can be potentially dangerous."

Wales has the highest prevalence of diabetes in the UK

An analysis of the number of people in Wales diagnosed with diabetes shows it to be the highest in the UK, increasing from 194,693 to 198,883 since last year. This is a prevalence of 7.6% compared to 6.9% in the rest of the UK.

Information from Public Health Wales suggests that more than 60% of adults in Wales are overweight or obese and while Type 2 diabetes is not associated with weight in all those diagnosed, it is estimated to be a risk factor for 80 to 85% of a person's risk factor for developing Type 2 diabetes.

Wales is the only UK country not to have a diabetes prevention programme but the Welsh government's obesity strategy 'Healthy Weight, Healthy Wales', was published earlier this year and funding was allocated.



CHARITY NEWS

JDRF Press release: former Prime Minister Theresa May becomes an ambassador for Type 1 research charity

Former UK Prime Minister Theresa May, who was diagnosed with Type 1 diabetes in 2013, will become an Ambassador for the Type 1 diabetes research charity, the JDRF (Juvenile Diabetes Research Foundation) to champion its global research programme.

After initially being incorrectly diagnosed with Type 2 diabetes, Mrs May was later diagnosed as having LADA, a form of Type 1 diabetes that is diagnosed in older people. Although also an autoimmune condition, it has a much slower onset than Type 1 diabetes in children and young people.

Announcing her decision to take up the role, Mrs May said: "Type 1 diabetes is a serious condition that requires a carefully managed routine, whether you are a 12-year-old school child or a prime minister standing at the despatch box." While this may be so, there is a big difference between diagnosed at 12 with the whole of your life to live and in older age!

Karen Addington, UK Chief Executive of JDRF, said: "We are delighted to welcome Theresa May as a JDRF Ambassador. Theresa has committed to championing our cause, bringing to life the seriousness of the condition, and raising the profile of Type 1 diabetes and JDRF's research."

Report recommends people with Type 1 diabetes should have improved access to medical technology

A report from the JDRF which is based on the opinions of people with Type 1 diabetes makes 3 main recommendations:

- People with Type 1 diabetes should have more time with specialist healthcare professionals at appointments.
- Healthcare professionals should receive mandatory training on Type 1 diabetes technology.
- Clinical Commissioning Groups should do more to reach people with Type 1 diabetes from lower socio-economic groups.

Another of the recommendations is the creation of a national diabetes register which would have the following functions:

- mapping Type 1 diabetes technology uptake,
- recording spend breakdown per prescribed device,
- providing regional statistics regarding health outcomes,
- empowering clinicians to see patient data in one system,
- ideally the register could also track which healthcare professionals are trained in which Type 1 diabetes technologies.

IDDT comment: while the JDRF is a Type 1 diabetes charity, these issues are also very important to people with Type 2 diabetes, many of whom need today's various technologies.



TRIBUTE TO JOHN HUTCHINSON

We have to report that sadly John Hutchinson passed away in May 2020. John was a dedicated Trustee of IDDT who never ceased looking for ways of improving the lives of people with diabetes and their families.

John lived with Type 1 diabetes for many years and over this time he saw the many different changes in diabetes treatment which gave him the valuable experience that he brought to IDDT.

Before joining IDDT, for many years he and his wife, Doreen, were heavily involved in their local Diabetes UK Group and helping to raise funds and support other people with diabetes and with Doreen, this continued during his time as a Trustee of IDDT.

He brought new ideas to IDDT, the Lottery was John's idea and it now raises about £10,000 a year. He also raised important issues, and he never failed to raise issues that he felt would improve the care and treatment of those living with diabetes.

I will personally miss John's support, help and friendship. He will be sadly missed by all the Trustees and staff. Our best wishes go to Doreen and his family at this sad time.

Jenny Hirst MBE
Co-Chair, IDDT



THE IDDT'S LOTTERY DRAW WINNERS

We are delighted to announce the winners of our latest monthly lottery draws. They are as follows:

Winners of the February 2020 draw are:

- 1st prize of £575.52** goes to Anon. from Warwick
- 2nd prize of £431.64** goes to Anon, from Hornchurch
- 3rd prize of £287.76** goes to John from Preston
- 4th prize of £143.88** goes to Anon. from Cardiff

Winners of the March 2020 draw are:

- 1st prize of £569.28** goes to Bernadette from Bexley Heath
- 2nd prize of £426.96** goes to Anon. from Bristol
- 3rd prize of £284.64** goes to Ligaya from Kettering
- 4th prize of £142.32** goes to Dorothy from Newton-le-Willows

Winners of the April 2020 draw are:

- 1st prize of £571.68** goes to Anon. from Redditch
- 2nd prize of £428.76** goes to Anon. from Montrose
- 3rd prize of £285.84** goes to Anon. from Farnham
- 4th prize of £142.62** goes to Abubakar from Birmingham

Note: The winners of the draws for May, June, July 2020 will be announced in our September 2020 Newsletter and on our website.

A huge 'Thank You' to everyone who supports IDDT through the lottery.

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



PHARMACEUTICAL NEWS

More new biosimilar insulins

Liumjev – a new biosimilar insulin

Marketing approval has been given by the European Medicines Agency for this new biosimilar insulin called Liumjev, so it is authorised for use in adults across the EU.

Biosimilar insulins are similar to ones that are already licensed to one of the three major insulin producers but they do not have to go through such rigorous trials. Importantly, they are cheaper than the original insulin, which benefits our NHS and the many people in the world who have difficulty affording the insulin they need.

Liumjev's active ingredient is insulin lispro and it acts faster than human insulin or standard insulin lispro (Humalog by Eli Lilly).

IDDT's comment: just wish these new insulins have more pronounceable names!

The EU recommends approval of another biosimilar insulin

The European Medicines Agency's Committee for Medicinal Products for Human Use has recommended approval of Sanofi's biosimilar insulin aspart. It is intended to treat patients aged 1 year and above with diabetes who need insulin to control blood glucose levels.

This Insulin aspart Sanofi is similar to Novo Nordisk's insulin aspart, NovoRapid, in terms of quality, safety and efficacy, and so it is a fast-acting insulin analogue. It now awaits marketing approval. (May 2020)

Using Type 2 drugs to treat Type 1 diabetes

There have been discussions about whether some Type 2 drugs could be used to treat Type 1 diabetes as add-ons to insulin. Trials for two of these drugs suggest not.

Does exenatide addition to insulin help people with Type 1 diabetes?

A study involving 654 patients with Type 1 diabetes found those who took exenatide (a Type 2 drug) as an add-on to insulin treatment three times a day experienced no improvement in glycaemic control or clinically relevant change in postprandial (after-meal) high glucose levels or glycaemic variability after 26 weeks. So, the researchers concluded that short-acting exenatide does not seem to have a future as a standard add-on treatment to insulin therapy in Type 1 diabetes. However, the findings did show that exenatide lowered prandial (mealtime) insulin requirements for meals and reduced body weight compared with a placebo. (The Lancet Diabetes & Endocrinology, March 2020)

Empagliflozin for Type 1 diabetes as add-on to insulin is not happening

It was also suggested that empagliflozin, another Type 2 drug, could be used as an add-on to insulin in people with Type 1 diabetes. NICE was asked by the Department of Health and Social Care to carry out a Technology Appraisal of the drug for this use but in May 2020 announced that the manufacturer has advised that they are no longer pursuing a Marketing Authorisation from Europe.

From our own CORRESPONDENTS



FreeStyle Libre doesn't work for my daughter

Dear Jenny,

I thought it may be of interest to your members to know that the FreeStyle Libre doesn't work for everybody. My daughter was put on a trial of the Libre and the nurse applied the first patch but we were very disappointed that they did not replace finger pricking tests.

My daughter has epilepsy, restless legs syndrome and sleep apnoea as well as Type 1 diabetes and she was unable to keep the patches attached. Only 2 patches successfully stayed on for 14 days but took a lot of knocks with some questionable readings. At the end of the trial, it was decided that while a very good idea, it was not suitable for my daughter.

We remain positive to new technology but negatives should be viewed and considered just as importantly as the positives so that there can be improvement for everyone.

Mrs F.C. *West Midlands*



Your advice definitely helped me!

Hi Jenny,

I just wanted to say hello to you and thank you for your advice that you gave on your website, many years ago.

I have been a diabetic for 30 years now, I got it when I was 15. Anyway about 12 years ago, I had a seizure in the middle of the night due to having low blood sugar and not waking up. I eventually came around and was okay. I was not happy with the fast-acting insulin that I was on and found I was losing warning signs and found it very strong.

I read your article about porcine insulin and how it suited your daughter. I managed to get my doctor to change my insulin to a porcine one and found it so much better, especially for getting warning signs and being less aggressive. I was talked into trying a human insulin again last year, I thought I would try it just in case it was better. I found it very scary as I wasn't always getting warning signs again.

I asked to be put back on the porcine insulin and it was very comforting to have it back knowing the characteristics of it and being used to it.

Every year when I have my diabetic review the nurse always makes a comment about how they are phasing out the porcine insulin and it won't be available. I'm desperately hoping that this does not happen and the work that you do will stop this happening.

I'm happily married, have two lovely children and have a job that I enjoy. I happened to go on your website this evening and just thought I would say thank you for your advice as I know it has definitely helped me. Let me know if there is anything I can do to help?

By email

We should know about the MHRA

Dear Jenny,

I have been having problems with my animal insulin and I reported these to the MHRA (Medicines Healthcare products Regulatory Agency) through the Yellow Card system. They have confirmed that where there is a problem with the insulin I am using or any other medication, they record this but will only take action if there is more than one complaint about a certain medicine. I thought this information may be useful to other IDDT members.

Mr B.R.

South East

IDDT Note: We have published details of the MHRA in this Newsletter.

RESEARCH NEWS

June 2020 Newsletter

Issue 105

Can Type 1 diabetes be defined as 2 subtypes?

Research at the University of Exeter has shown that children who are diagnosed with Type 1 diabetes under the age of 7 years old seem to have different forms of Type 1 diabetes to those aged 13 and above.

The researchers studied 130 pancreas samples across three age groups: under 7 years old, 7-12 years old, and 13 years and above. The pancreas samples were stained so that insulin and proinsulin could be seen.

As we know, insulin is a hormone which plays a key role in the regulation of blood glucose levels. Proinsulin is a precursor (a substance from which another is formed) to insulin made in the beta cells of the islets of Langerhans in the pancreas.

The study showed that proinsulin was not processed properly in the younger age group and was released at the same time as insulin but in the older age group, this was less common.

This suggests that a blood test could be used to measure proinsulin and the amount of insulin being produced to find out someone's ability to process proinsulin, denoting the subtype of Type 1 diabetes.



Researchers at University of Exeter proposed 2 different forms of Type 1 diabetes:

- Type 1 Diabetes Endotype 1 (T1DE1) for young children
- Type 1 Diabetes Endotype 2 (T1DE2) for those who are older at diagnosis

They are now working on more precise ways to define which type of diabetes children have by studying the small amounts of insulin released into their blood. The significance of this could be enormous in helping to understand what causes the condition and in unlocking ways to prevent future generations of children from getting Type 1 diabetes. It might also lead to new treatments which may mean different treatments for different age groups. (Diabetes, March 2020)

Older people with Type 2 diabetes should have individualised care

New research has found that maintaining tight glucose control, especially with insulin, may not always be the best approach for some people with Type 2 diabetes because it can lead to hypoglycaemia (low blood sugars).

The researchers at the Mayo Clinic in the US stated that people who are older or who have additional serious health conditions, are at high risk of hypoglycaemia and this is likely to be more dangerous for them than a slightly raised blood sugar level. They also pointed out that the benefits of tight control usually occur over many years, so for many people treated intensively with the added risk of hypoglycaemia, there is no real benefit.

The findings suggest a different approach should be used for younger people with Type 2 diabetes. Younger people should be treated more aggressively by using insulin or multiple medications to lower their HbA1c.

The trial involved looking at the health information from more than 194,000 people with Type 2 diabetes. It showed that those who maintained average HbA1cs of 7.7% were

aged between 18 and 44 and those who achieved average HbA1cs of 6.9% were aged about 75. So this is the wrong way round because it means that older people are more at risk of the dangers of hypos and younger people are more at risk of complications because they have higher HbA1cs for a longer time. Thus, the researchers recommend individualised care for people with Type 2 diabetes. (BMJ Open Diabetes Research & Care, 20th February 2020)

Higher manganese intake may reduce the risk of Type 2 diabetes

A recently published study has shown that postmenopausal women who had the highest intakes of dietary manganese had a lower risk of developing Type 2 diabetes when compared with those who had the lowest consumption levels. The researchers concluded that consumption of food groups rich in manganese could potentially be targets for intervention against Type 2 diabetes risk in postmenopausal women. (Diabetes Care, April 2020)

What foods are rich in manganese?

- nuts, such as almonds and pecans,
- beans and legumes,
- oatmeal and bran cereals,
- whole wheat bread,
- brown rice,
- leafy green vegetables, such as spinach,
- fruits, such as pineapple,
- dark chocolate.

Regular thyroid testing recommended for all types of diabetes

It has been recognised for some years that thyroid dysfunction is common among people with both Type 1 and Type 2 diabetes. This suggests that thyroid screening should be a part of routine management for those with Type 1 and Type 2 diabetes.

The American Diabetes Association (ADA) recommends universal thyroid screening in people with Type 1 diabetes. Previously they recommended this screening in women at least 50 years old with Type 2 diabetes but both the current ADA and this country's NICE guidelines do not recommend thyroid monitoring in Type 2 diabetes.

An observational study analysed information from 1,617 adults in a sample of people in the Freemantle Diabetes Study Phase 11: 8% with Type 1 diabetes, 87.1% with Type 2 diabetes and 4.9% with latent autoimmune diabetes in adults (LADA). 189 people had known thyroid disease.

About 3% developed thyroid disease during the 7 years of the study which the researchers believe highlights the need for periodic thyroid function testing.

In analysis by diabetes type, no between-group differences were observed in the prevalence or incidence of thyroid dysfunction. This means that the presence of thyroid disease is about the same regardless of the type of diabetes, mainly because the average age of people with Type 2 diabetes was higher than in those with Type 1 diabetes.

Therefore, the researchers concluded that thyroid function tests are probably indicated for all people with diabetes but recommend that further research is carried out. (Clinical Endocrinology, February 2020)

And another study - Longer work hours may increase risk of hypothyroidism

People with Type 1 diabetes are at risk of other autoimmune conditions including thyroid problems so this study is interesting. It found that hypothyroidism (under-active thyroid) was about 2.6 times more prevalent in people who worked from 53 to 83 hours a week compared with people who worked 36 to 42 hours a week. However, the study did not show a link with hyperthyroidism with longer work hours per week. (Thyroid, April 2020)



Learning more about the **THYROID**

It is worth noting that the symptoms of thyroid disease are not always noticed by the person with the condition, it maybe family members who become aware of the symptoms first. It is important that we know a little more about the thyroid and its disorders.

The thyroid is a small, butterfly-shaped gland located at the base of the neck just below the Adam's apple. It's part of a network of glands, the endocrine system, which is responsible for coordinating many of the body's activities. It manufactures hormones that regulate your body's metabolism.

There are 4 common disorders of the thyroid which can arise when the thyroid produces too much hormone (hyperthyroidism) or not enough (hypothyroidism). These are Hashimoto's disease, Graves' disease, goitre, and thyroid nodules.

Hypothyroidism

Hypothyroidism is when the thyroid gland is underactive and it can't produce enough of its hormone, thyroxine. It is often caused by Hashimoto's disease, surgery to remove the thyroid gland, or damage from radiation treatment. Most cases of hypothyroidism are mild. Too little thyroid hormone production leads to symptoms such as:

- fatigue
- dry skin
- increased sensitivity to cold
- memory problems
- constipation
- depression
- weight gain
- weakness
- slow heart rate
- coma

The main treatment for hypothyroidism is to take thyroxine pills but it is important to get the dose right otherwise taking too much thyroxine can cause symptoms of hyperthyroidism.

Hyperthyroidism

In hyperthyroidism, the thyroid gland is overactive producing too much of its hormone, thyroxine. It affects about 1% of women and is less common in men. Excessive thyroid hormone production leads to symptoms such as:

- restlessness
- nervousness
- racing heart
- irritability
- increased sweating
- shaking
- anxiety
- trouble sleeping
- thin skin
- brittle hair and nails
- muscle weakness
- weight loss
- bulging eyes (in Graves' disease)

Treatments for hyperthyroidism destroy the thyroid gland or block it from producing its hormones.

Hashimoto's disease

Hashimoto's disease, also known as chronic lymphocytic thyroiditis, is a common cause of hypothyroidism. It can occur at any age but is most common in middle-aged women. The disease occurs when the body's immune system mistakenly attacks and slowly destroys the thyroid gland and its ability to produce hormones.

Some people with mild cases of Hashimoto's disease may have no obvious symptoms and can remain stable for years. The symptoms are also not specific and mimic symptoms of many other conditions and may include:

- fatigue
- depression
- constipation
- mild weight gain
- dry skin
- dry, thinning hair
- pale, puffy face
- heavy and irregular menstruation
- intolerance to cold
- enlarged thyroid, or goitre

Hormone-replacing medication is often used to raise thyroid hormone levels and this can also help relieve the symptoms.

Graves' disease

Graves' is an autoimmune disorder that occurs when the body's immune system mistakenly attacks the thyroid gland. This can cause the gland to overproduce thyroxine, the hormone responsible for regulating metabolism.

The disease is hereditary and may develop at any age in men or women, but it's more common in women aged 20 to

30. Other risk factors include stress, pregnancy, and smoking.

When there's a high level of thyroxine in the bloodstream, the body's systems speed up and cause symptoms that are common to hyperthyroidism.

There's no treatment to stop the immune system from attacking the thyroid gland, however, the symptoms of Graves' disease can be controlled in several ways, often with a combination of treatments.

Goitre

Goitre is a noncancerous enlargement of the thyroid gland with the most common cause being iodine deficiency in the diet. It can affect anyone at any age, especially in areas of the world where foods rich in iodine are in short supply but goitres are more common after the age of 40 and in women. Other risk factors include family medical history, certain medications, pregnancy and radiation exposure.

There might not be any symptoms if the goitre isn't severe but there may be one or more of the following symptoms if it grows large enough:

- swelling or tightness in your neck
- difficulties breathing or swallowing
- coughing or wheezing
- hoarseness of voice

Goitre is usually treated only when it becomes severe enough to cause symptoms.

Thyroid nodules

Thyroid nodules are growths that form on or in the thyroid gland. The causes aren't always known but can include iodine deficiency and Hashimoto's disease. Most are benign but they can be cancerous, although this is rare. The nodules are more common in women than men but the risk in both sexes increases with age.

Some nodules produce thyroid hormone, causing abnormally high levels in the bloodstream and then the symptoms are similar to those of hyperthyroidism. However, symptoms will be similar to hypothyroidism if the nodules are associated with Hashimoto's disease.

Benign thyroid nodules aren't life-threatening and usually don't need treatment. Usually if the nodule does not change over time, nothing is done.



Bits & pieces

Insulin requirements after surgery

People with Type 2 diabetes may require more insulin after they have just had surgery, especially if there has been a rise in their HbA1c level or C-peptide protein level. This finding was from a study of 49 people with Type 2 diabetes and showed that their insulin requirements increased by 3.11 units per day after surgery. (Journal of Diabetes Investigation, February 2020)

The risk of Type 2 diabetes is lower in women who breastfed

A study of 4,372 women aged 25 and older with a history of gestational diabetes showed that those who breastfed had a lower risk of developing Type 2 diabetes compared with those who did not breastfeed. This risk was lowered by 9% for those who breastfed for 6 to 12 months, 15% for 2 years and 27% for more than two years. The study also showed that longer duration of lactation was linked to lower HbA1c levels, fasting plasma insulin and C-peptide concentrations during follow up in women without Type 2 diabetes. (Diabetes Care, February 2020)

Increased risk of retinopathy in young onset Type 2 diabetes

A study has shown that people with young onset Type 2 diabetes diagnosed between the ages of 15 and 40, and with a duration of 15 years have a higher risk of developing retinopathy compared with those who had a similar duration of Type 2 diabetes but were diagnosed between the ages of 60 and 70 years. The study, involving 3,322 adults with Type 2 diabetes, also showed that the younger onset group with a duration of 10 to 15 years have a lower risk of developing macrovascular disease and albuminuria than those diagnosed between 60 and 70 years. (Diabetic Medicine, February 2020)

Is there a link between asthma and Type 1 diabetes in children?

In this study, children with asthma had a small but significantly greater risk of developing Type 1 diabetes compared with those without asthma. However, it showed no increased asthma risk among those with Type 1 diabetes. The study involved 1.28 million Swedish youths. (JAMA Network Open, March 2020)

CGM linked to improved sleep in children with Type 1 diabetes

A study found that children with Type 1 diabetes who used continuous glucose monitoring (CGM) had fewer sleep disturbances compared with non-users but their parents experienced more sleep disturbances. The researchers looked at 46 parent-child relationships. The study also showed that the health-related quality of life in both children and parents was affected only when children were exhausted during the day, which the parents put down to disrupted sleep due to blood glucose monitoring the previous night. (Diabetes Technology & Therapeutics, March 2020)

Early antibiotics and Type 1 diabetes

Children who were given antibiotics during the first year of life, especially those born by caesarean section, had a higher risk of developing Type 1 diabetes by the age 10 years. However, the researchers said that the absolute risk is low and antibiotics are likely to only make a small contribution to the overall risk of Type 1 diabetes before age 10. (Diabetes Care, March 2020)

C-section birth increases risk of obesity and Type 2 diabetes risk in adults

A study found that women born via caesarean section had an 11% higher risk of being obese and 46% higher risk of developing Type 2 diabetes later in life compared with women born via vaginal delivery. The study involved more than 30,000 women and the findings were independent of other factors like body mass index or age of the participants' mothers or breastfeeding. (JAMA Network Open, April 2020)

Early puberty linked to late Type 2 diabetes in men

An observational study following 30,600 Swedish men showed that boys who had their pubertal growth spurt at age 9.3 to 13.4 years had an almost two-fold higher risk of developing early Type 2 diabetes, compared with those who had the growth spurt at the age of 14.8 to 17.9 years. This was irrespective of their weight in childhood. The findings also showed that boys who had early puberty had a 27% higher risk of developing late-onset Type 2 diabetes and that those who went on to develop the condition were more likely to need insulin treatment compared with boys who reached puberty at a later time. (Diabetologia, March 2020)

MATT HANCOCK WATCH ... *NOT THIS TIME!*



I'm not writing a Matt Hancock Watch in this Newsletter because I think we have probably all seen enough of him in the last few weeks!

Once we get back to some sort of normality, it will be interesting to see how the experiences of this pandemic affect the way the NHS runs in the future. For instance, I have had reports that contacts with GPs via the telephone have been much better and speedier than prior to the pandemic. Will this way of functioning result in a re-think of how GP practices organise their appointment systems? Will some of the bureaucracy and paperwork that normally happens be found to be an unnecessary burden on the NHS staff? Will the public decide that they don't need to attend A&E for minor ailments?

In February, in the new GP contract, the Government and NHS England committed at least £1.5bn for additional staff in GP practices over the next 4 years with the aim of delivering 50 million more GP appointments by 2024. This means a recruitment of around 6,000 more primary care professionals, 26,000 staff to bolster surgeries, including pharmacists, physiotherapists, dieticians, occupational therapists, becoming central to primary care teams, not to mention finding initiatives for recruitment and retention in GP practices. Matt Hancock also proposed that the General Practice Contract for 2020/21 will include:

- More check-ups for new mums
- Regular visits for care home residents
- Assessments of medications, incentives to increase uptake of vaccinations and learning disability health checks, expand social prescribing referrals, and improve prescription safety checks.

We wonder what will happen now? At the time Matt Hancock said: *"This new contract is the first step to delivering our manifesto commitment to make it easier to get a GP appointment when you need it by delivering 50 million more appointments a year in general practice. (Does this sound a bit like the delivery of 100,000 Covid-19 tests by the end of April?)*

The significant additional investment means GP surgeries can recruit more pharmacists, physiotherapists and other health professionals so patients get the right care for them when they need it. It's all part of our commitment to ensure the NHS is always there for everyone."



SNIPPETS

Poor sleep quality may increase food consumption

According to a study of 500 women, taking longer to fall asleep was associated with higher calorie intake and increased food consumption by weight. This could increase the risk of obesity and heart disease. The study also showed that poorer sleep quality was associated with greater consumption of added sugars. (Journal of the American Heart Association, February 2020)

Breakfast should be eaten

A published study found the risk for cardiovascular disease was 22% higher for adults who did not eat breakfast, compared with those who did. It also showed that all-cause mortality risk was 25% higher for people who did not eat breakfast, compared with those who ate breakfast. (Clinical Nutrition, January 2020)

Risks and benefits of exercise

A recent scientific statement from the American Heart Association said for most people, the cardiovascular benefits of light-to-moderate exercise exceed the potential harms, but high-volume, high-intensity exercise over time may increase cardiovascular risks. They studied thousands of people and concluded that physically active people have

about a 50% lower overall risk for acute coronary events. (Circulation, February 2020)

Vegetarian diet may decrease the risk of stroke

Researchers report that their study showed that following a vegetarian diet was linked to a decreased risk for overall ischemic and haemorrhagic stroke compared with a non-vegetarian diet. They also said that Vitamin B12 intake may modify the association between vegetarian diet and overall stroke. (Neurology, February 2020)

Drinking coffee doesn't increase arrhythmia risk

A study presented at the Heart Rhythm Society's conference (May 2020) did not find evidence linking coffee consumption to an increased risk of arrhythmia. It was found that drinking up to five or more cups of coffee per day was associated with a lower risk of arrhythmia when compared with no coffee consumption.

Eating more at breakfast than dinner is better

Researchers report that eating more food at dinner than breakfast was associated with a higher risk of death from diabetes and cardiovascular disease among people with diabetes. The study involved analysing information from 4,699 adults

with diabetes from 2003 to 2014, 2,413 men were men. The researchers found that changing 5% of total energy from dinner to breakfast may reduce the risk of death from diabetes by 4% and from cardiovascular disease by 5%. (Diabetes Care, May 2020)

Yoga plus medication may reduce migraines

Worldwide it is estimated that 1 billion people have migraine headaches. A recently published study found that people with migraine who combined gentle yoga (with slow-paced physical postures, breathing exercises and relaxation) and their usual migraine medication had a 48% decrease in the number of headaches per month, so nearly half as many. However, people who just remained on medication had only a 12% decrease in the number of attacks per month, very little change.

It is important to stress that the yoga was not the fast-paced and strenuous styles offered in many real-world classes. In the study, people with migraine first had classes with a yoga teacher 3 times a week for a month and then practised at home with a manual for 2 months after which the frequency of their headaches had dropped. (Neurology, May 2020) Maybe something to think about if you suffer from migraines?