



Good wishes for Christmas and 2016

The Trustees and staff of IDDT send best wishes to all our readers for Christmas and we hope you have a happy and healthy 2016. We would also like to thank you for your support throughout the last year with your donations, your entries into our Lottery and buying our Christmas cards. All of this helps IDDT to continue our work to support people with diabetes and to provide up-to-date information to help them manage their diabetes.

Earlier this year, we launched our 'Parents Passport for Schools' which has been well received by schools across the country. The Passport helps teachers to look after children and young people with diabetes at school by providing essential information about each child's diabetes. We hope that this will help to improve the lives of children and young people at school and give their parents reassurance that their children will receive the care they need, especially if hypos occur.

We would also like to thank you for responding to the survey we sent out early in 2015 to find out your views on the services you receive and your priorities for improving your care and therefore your future health. As a result, IDDT produced a Report entitled **Diabetes 2015 – Care in Crisis** to highlight that the care, education and treatment of people with diabetes varies greatly across the country with some people receiving excellent care but unfortunately for many people, less than adequate care.

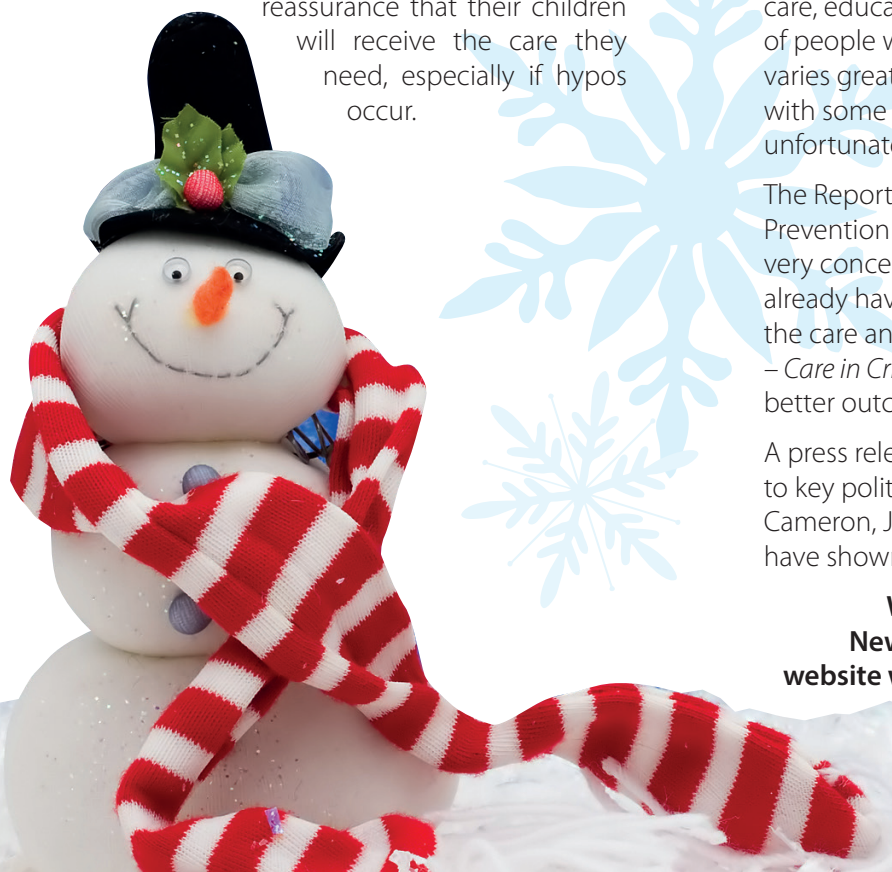
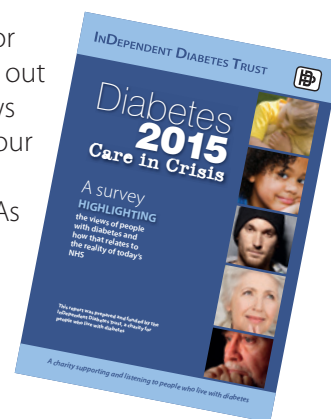
The Report acknowledges that the proposed Diabetes Prevention Programme is important for the future, but IDDT is very concerned that many of the over 3 million people who already have Type 1 and Type 2 diabetes are not receiving the care and treatment they need and deserve. *Diabetes 2015 – Care in Crisis*, makes recommendations for better care and better outcomes for people with Type 1 and Type 2 diabetes.

A press release was issued and the Report has been sent to key politicians and leaders in the NHS, including David Cameron, Jeremy Hunt, Sir Simon Stevens and many MPs who have shown an interest in health and diabetes.

We are including a summary of the report in this Newsletter but the full report can be viewed on our website www.iddtinternational.org or if you would like a copy, just call IDDT on 01604 622837 or email jenny@iddtinternational.org

In this issue...

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- Oral Health
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Diabetes 2015

Care in Crisis

Better care, better outcomes the needs of people with diabetes

Summary

The Five Year Forward Review

The Trust recommends:

- People who are already living with Type 1 and Type 2 diabetes are recognised as a priority in the Five Year Forward Review, separately from obesity.
- As over 3 million people in the UK have diabetes, diabetes should have its own place within the NHS system in a similar way to dementia, a condition with less than a million people and a third of the number of people with diabetes.
- The now defunct NHS Diabetes should be reinstated to improve care, the outcomes for people with diabetes and the education of health professionals in order to achieve these aims.

In the June Newsletter, we reported the European Medicines Agency (EMA) is reviewing of canagliflozin, dapagliflozin and empagliflozin, which are diabetes medicines for Type 2 diabetes, known as SGLT2 inhibitors. This was because of reports of diabetic ketoacidosis (DKA) in patients treated with SGLT2 inhibitors, but the DKA was not typical because it occurred with only mildly raised blood glucose levels. The FDA in the US also issued a warning about this side effect.

Follow up from

Now bone fractures!

In September the FDA added a new warning about canigliflozin (Invokana, Invokamet) but this time related to increased risk of bone fractures and about decreased bone mineral density. Fractures can occur as early as 12 weeks after starting canagliflozin and the decreases in bone mineral density are at the hip and lower spine.

The FDA is continuing to investigate the risk of bone fractures with other drugs in the same SGLT2 inhibitor class, including dapagliflozin (Farxiga, Xigduo XR) and empagliflozin (Jardiance, Glyxambi, Synjardy), to determine if additional label changes or studies are needed. Health care professionals and patients are urged to report side effects involving canagliflozin or other SGLT2 inhibitors.

Education

The Trust recommends:

- Clinical Commissioning Groups (CCGs) should be strongly encouraged to follow NICE guidance to commission convenient and high-quality structured education courses for all those who wish to attend. CCGs should also offer other learning opportunities about diabetes such as peer support, group learning and online courses.
- An estimated 2.50 million people may not have received high quality structured education courses, therefore to alleviate this problem, CCGs should provide basic hard copy information in non-medical language about diet, exercise, the differences between Type 1 and Type 2 diabetes and what medications are designed to do.

Dietary Recommendations

- As diet is part of the treatment for both Type 1 and Type 2 diabetes and the present dietary guidelines are over 30 years old, the Trust recommends a review to produce evidence-based dietary guidelines for diabetes and the general public.

The 9 Key Health Checks

- The Trust recommends that resources are increased to improve the care of people with Type 1 and Type 2 diabetes by ensuring that they all receive the 9 key health checks recommended by NICE to prevent diabetes complications and reduce the long-term costs of treating complications.

Foot Care

The Trust recommends:

- Improvement in the knowledge of health professionals in primary care about foot problems and when referral is necessary, by further training.
- Increasing the numbers and availability of NHS podiatrists to provide greater access to people with diabetes and help to reduce the risk of serious foot problems.

Children and Young People with Type 1 Diabetes

Only 16.1% of children aged 12 years and older are receiving the 7 health checks recommended by NICE and less than half are receiving some form of structured education. Both of these are contributing to too many children with Type 1 diabetes showing early serious long-term complications.

The Trust recommends increasing resources to provide improvements in the care of children and young people with Type 1 diabetes who have to live their whole lives with the condition and therefore are at great risk of diabetic complications.

Older People with Diabetes in Residential Care

As 27% of people in residential care have diabetes, the Trust recommends:

- Good quality training for care home staff of all levels to avoid the health and quality of life of this vulnerable group suffering.
- Full national implementation of the standards recommended in the Diabetes UK 2010 report 'Good clinical practice for care home residents with diabetes'
- Mandatory demonstration of this as a CQC requirement in a similar way to dementia care.
- CCGs to put plans in place to improve diabetes care for older people resident in care homes.
- The use of the Passport for People with Diabetes in Care Settings prepared jointly by the Trust and the Institute of Diabetes in Older People.

September Newsletter

Transparency in research

In the June 2015 Newsletter we reported the requirement by the Health Research Authority (HRA) for all drug trials to be registered to avoid companies hiding 'negative' results which makes a drug appear to work better than it actually does.

The transparency standards, introduced in 2000, required sponsors of clinical trials to register their trials with ClinicalTrials.gov and to state the outcomes they plan to measure. Interestingly, in August 2015 a study was published showing a drastic drop in trials with positive results, following the new transparency standards.

- Between 1970 and 1999, 57% of published trials reported positive results.

- Between 2000 and 2012, only 8% of trials reported positive results.

While the study looked at cardiovascular issues, the authors said the results are likely to apply to all human drug trials, including treatments for cancer, diabetes or other diseases. They also commented: "Null outcomes, or results other than what was expected, might be disappointing, but they may inform doctors and patients which treatments are not likely to be helpful." (PLoS ONE 10(8):e0132382)

Oral Health and Diabetes



by Dr. Mabel Blades

Introduction

Smiling indicates to people you are happy! Even if you are feeling a bit down in the dumps a smile causes the brain to release endorphins which, after a few minutes, do lift your mood.

But smiling brings attention to the teeth and mouth, so oral health is extremely important and having dental problems or a sore mouth really impacts on what you can eat and how you feel. For those with diabetes this can be of even more concern. Oral health is an important component of general health and risk factors in oral disease are often the same as those implicated in general diseases.

Risk factors

The main risk factors for oral disease are

- Sugars
- Acids
- Not cleaning teeth

For people with diabetes the risk of both tooth decay and gum disease can be increased due to the higher levels of glucose in saliva.

Tooth decay (dental caries)

Over 30% of adults in the UK have some form of tooth decay and as most people know, it is due to acid erosion of the teeth which causes demineralisation and decay. Culprits in causing this are acid items like fruit juices and sugars on which bacteria thrive. The bacteria multiply in a film called "plaque" which sticks to the surface of the teeth and when too much plaque builds up, problems arise as the bacteria produce acids which attack the teeth.

Sugars

The more sugar that is present in the mouth, the more the bacteria multiply so for people with diabetes, the higher level of sugars can encourage the bacteria in the mouth to multiply.

The type of sugar that is more harmful is added sugar, which is sometimes called extrinsic sugar as it is easily

released in the mouth during eating or drinking. Intrinsic sugars are those found locked inside fruits and vegetables which are not released to any extent until they begin digestion, so they have a lesser effect.

Examples of added sugars seen on food labels are sucrose (ordinary table sugar), glucose and syrups to name but a few.

It is recommended that added sugars shouldn't make up more than 10% of the energy (calorie intake) you get from food and drink each day - about 70g for men and 50g for women, with a teaspoon being about 4-5g of sugar. Recently it has been recommended that sugar should not make up more than 5% of the energy in the diet. This is a halving of the amount and fits in well with a reduction of carbohydrates for people with diabetes.

Looking at sugar on food labels

- (Total) Sugars $\leq 5.0\text{g}/100\text{g}$ LOW
- $> 5.0\text{g}$ and $\leq 22.5\text{g}/100\text{g}$ MEDIUM
- $> 22.5\text{g}/100\text{g}$ HIGH

For drinks it is

- (Total) Sugars $2.5\text{g}/100\text{ml}$ LOW
- $> 2.5\text{g}$ $\leq 11.25\text{g}/100\text{ml}$ MEDIUM
- $> 11.25\text{g}/100\text{ml}$ HIGH

Acids

These are found in items like fruit juices which also contain sugars because in making the juices, the intrinsic sugars are released from the whole fruit so become the more harmful extrinsic sugars.

Soft drinks generally contain acids, even the low calorie ones or ones without added sugar.

Therefore water, milk and hot beverages like tea (without sugar) are preferable.

General advice

To prevent decay clean teeth regularly with a fluoride toothpaste – remember to spit out the residue but not rinse the toothpaste out after brushing as this removes the protective fluoride. See your dentist every six months for advice.

Motorists banned in error after faulty DVLA visual field test



An article in The Guardian (17th October 2015) reported that hundreds of drivers have been taken off the road due to faulty visual field equipment used between 2010 and 2015. The DVLA banned over 600 motorists from driving following tests carried out by government appointed optometrists, but the DVLA now admits that the test results were false. This will mainly apply to people with glaucoma and diabetic retinopathy, both of which can cause visual field loss.

The DVLA is refusing to compensate drivers, many of whom have been forced to sell their cars, pay for taxis or other forms of transport, not to mention people who could have lost their jobs as a result of not being able to drive. The DVLA blames the makers of the equipment for the fault, which was a software problem in the equipment causing the lights to shine less brightly than they should have. Some people may have been able to detect the lights if the higher brightness level had been used and these people should not have lost their licences.

Although the DVLA maintains that as soon as they were aware of the problem, they contacted everyone who had been tested on the faulty equipment, it not only rejects liability but has made it very difficult to make a claim against the equipment manufacturer by refusing to disclose the company name. However, the government agency could face a potential multi-million-pound bill if people joined together using the new-style class legal actions permitted under the recently enacted Consumer Rights Act.

The agency says that of the 604 people affected, less than half of those who replied have sought to reapply for their licences; 71 are still awaiting a reassessment; and the DVLA is trying to get in touch with the 232 who have not yet responded. Around 80% of those who agreed to be reassessed have since had their licences restored.

The contract with Specsavers

Prior to 2013, the DVLA had a list of 'approved optometrists' for people to attend but since 2013, everyone who is required to have a field test by the DVLA has to go to a branch of Specsavers, dissatisfaction already discussed in IDDT Newsletters. The Guardian quotes the DVLA as saying "...the contract had to be tendered in accordance with the Public Contracts Regulations 2006. Specsavers provided the most economically advantageous tender." It was worth £8million to Specsavers.

Unanswered questions

Apparently Specsavers claim that it is thanks to its exclusive contract with the DVLA that the problem with the visual field analysers came to light. While this may be meant to be reassuring, it leaves some unanswered questions.

- Does the DVLA know who was tested on the faulty equipment between 2010 and 2013 when a variety of optometrists were used?
- Has everyone that should be contacted, been contacted?

The answers are not clear but if you feel that this could apply to you, we recommend that you appeal to the DVLA.

Link to article: <http://www.theguardian.com/money/2015/oct/17/motorists-banned-dvla-eyesight-test-faulty-equipment>

Parents

Type 1 diabetes causes anxiety for teenagers

An Australian study, the Diabetes MILES Youth report, looked into the psychological issues facing young people with Type 1 diabetes and their families. It found that a quarter of young people between the ages of 13 to 19 experienced moderate to severe symptoms of anxiety and depression.

- Girls often worry about the potential for weight increase from their treatment and were more likely to report severe symptoms.
- Boys were most concerned about friends and family not understanding how difficult living with diabetes can be.
- 18% felt they often had too much responsibility for the care of their diabetes.
- About one in three young people with Type 1 diabetes were known to need mental health support and 40% of them dropout of the healthcare system as they get older.
- Many young people and their parents were worried about hypos, especially those at night.

This report demonstrated the importance of raising awareness of the need to support young people with diabetes and for them to have more psychological and counselling support.

Pet care can help children manage Type 1 diabetes

A study has shown that children with Type 1 who had to take care of a pet fish had improved blood glucose levels. A doctor in Texas was aware that older children with Type 1 diabetes often want to manage their own diabetes but often run into problems because they don't check their blood glucose levels. She wondered if she gave children a pet to feed twice a day, it would get them into the habit of checking their blood glucose at the same time.

She recruited 29 children with Type 1 between the ages of 10 and 17 years. Sixteen were given a fishbowl, a fish and instructions to feed the fish morning and evening and to check their blood sugars at the same time. Once a week they had to change the fishbowl water and review their glucose results with a parent. The other children were not given a fish but were promised one later. After 3 months the children with the fishes had slightly improved glucose control (HbA1cs) but the HbA1cs of children without a fish worsened.

The doctor points out that children in this age group tend to have worsening glucose control, so anything that brings it down has to be good. (Diabetes Educator, June 2015)



Vitamin supplements for infants and young children

We read a lot about Vitamin supplements for adults but what about infants and young children? The Department of Health recommend that infants from 6 months to 5 years have a supplement containing vitamins A, C, and D.

The Scientific Advisory Committee on Nutrition (2008, 2009) found that some young children are at risk of vitamin D deficiency and 8% of children under 5 don't have enough Vitamin A in their diet, especially in low-income families. A healthy balanced diet should ensure that young children have most of the vitamins they need but vitamin D only occurs in a few foods, such as oily fish and eggs. It is added to some foods but the best source of vitamin D is sunlight.

There is a concern that growing children do not eat a varied diet and enough vitamins A, C and D. So the Department of Health recommends that all children from 6 months to 5 years old are given a vitamin supplement containing vitamins A, C and D (usually in liquid form) unless they are receiving more than 500ml of infant formula per day.

If parents are on income support or other benefits, they may be able to obtain vitamin supplements through the Healthy Start Scheme (www.healthystart.nhs.uk) otherwise they can be obtained from pharmacies.

How much exercise should children and young people have?

Three quarters of school children are not doing enough physical activity, according to a study funded by the British

Part



Heart Foundation, Diabetes UK and Tesco.

- Over 77% of children are doing no more than 4 hours of out of school exercise each week.
- Around 9 in 10 (88%) children in low income households are doing even less.

Perhaps one of the keys to this is that very few parents know how much activity their children should be doing, with 85% not knowing what the recommended guidelines are. Do you know?

According to Public Health England "all children and young people (aged 5 to 18) should engage in moderate to vigorous intensity physical activity for at least 60 minutes and up to several hours every day".

US approves pioneering study in children with Type 1 diabetes

Diamyd Medical has announced that a study combining the diabetes vaccine Diamyd® and GABA in children with new onset Type 1 diabetes has been approved by the US Food and Drug Administration. The combination has shown promising results in preclinical studies.

GABA is gamma-aminobutyric acid and it is hoped that administering it to those with new onset Type 1 diabetes may preserve insulin production by specifically halting the autoimmune attack on the beta cells that produce insulin, save insulin production, improve glycaemic control and decrease the risks of hypos and long-term complications.

The study is enrolling 75 newly diagnosed children and adolescents between the ages of 4 and 18 years who will be put on one of 3 treatments for 12 months:

- two injections of Diamyd® plus GABA for 12 months,
- GABA only,
- placebo.

At the end of 12 months, the effect on the preservation of the body's insulin production will be analysed.

The Diamyd® diabetes vaccine has been used in studies with more than 1000 people with diabetes patients. In a European study with children and adolescents recently diagnosed, Diamyd® showed an overall 16% efficacy versus placebo in preserving the body's own insulin secretion. The aim of combining treatment with Diamyd® and GABA is to test if this effect can be improved.

(Bimota Nambam et al. Pediatric Diabetes. Doi: 10.1111/pedi.12231)



Charities working together

thanks to

Lynwood Newman

Lynwood is one of our supporters and is also a health professional and here is a picture of him at a community show in Weymouth. He says, "I enjoyed it because I was able to offer some solutions to people and was able to provide practical support to people with diabetes. I was able to fit the right things with people visiting the stand. It was great to be able to demonstrate the usefulness of your Hospital Passport and Passport for Diabetes in Care Settings. It was great to work with IDDT and the Diabetes Research and Wellness Foundation (DRWF) and it was a pleasure to individualise products with complete neutrality."

This is a wonderful example of charities with a common cause being able to work together to help people with diabetes or at risk of it.



CHRISTMAS DINNER

*cutting calories and carbs
but not the enjoyment*

By Dr Mabel Blades, Consultant Dietitian

Christmas is a time for celebration and enjoying lovely food. Many people go out to several functions at this time of year when a Christmas dinner is offered.

Here are some ideas for how to cut calories and carbohydrate in an easy way. All calculations have been based on average portion sizes, so if you eat large ones, then the calories and carbohydrate will add up even more.

Traditional dinner

Portion of roast turkey, chipolata wrapped in bacon, stuffing, roast potatoes, brussel sprouts and gravy
Christmas pudding and brandy butter
Mince pie
3 small glasses of wine
123g carbohydrate, 83g fat, 33.6g saturated fat and 4g salt, 1736kcal

Traditional dinner with no mince pie or wine saves a further 400 calories and halves the amount of fat

Portion of roast turkey, chipolata wrapped in bacon, stuffing, roast potatoes, brussel sprouts and gravy
Christmas pudding and custard made with skimmed milk
114g carbohydrate, 39g fat, 13.0g saturated fat and 3.2g salt, 1040kcal

Further reductions can be made by:

- Cutting down on the potatoes and dry roasting them.
- The chipolata wrapped in bacon can be omitted.
- The plate can be filled up with extra vegetables, such as carrots or brussels.
- The Christmas pudding can be home made to a lower calorie recipe.
- Fruit salad can be substituted for the Christmas pudding.

IDDT has a list of tips for Christmas, if you would like a copy, give us a call on 01604 622837, email enquiries@iddtinternational.org or write to: IDDT, PO Box 294, Northampton NN1 4XS



*It's not too late to order
IDDT Christmas cards,
just give us a call on*

01604 622837

or visit our website shop:

<http://iddt.org/product-category/christmas-cards>

Christmas cards



Type 1 diabetes in adults: diagnosis and management, NG17

Here are some of the key points that have been updated:

- The HbA1c target should be reduced to 48mmol/mol (6.5%) or less for all people with Type 1, including children. (Many national and international recommendations are 48-58mmol/mol.)
- There should be an agreed individualised HbA1c with each patient, taking into account their particular situation, such as history of hypoglycaemia.
- An education programme should be offered 6 to 12 months after diagnosis.
- Patients should be supported to test 4 times a day and up to 10 times if the desired HbA1c is not achieved, if there is an increase in the frequency of hypos or hypo unawareness or if there is a legal requirement to do so eg DVLA regulations and also for sports, pregnancy and during breast feeding.
- The blood glucose aims should be fasting plasma glucose of 5-7 mol/l on waking and 4-7 mol/mol before meals and at any other time of day.

Continuous glucose monitoring (CGM) is recommended for people who experience significant problems with hypos, including loss of hypo awareness, and for people that have a high HbA1c (above 75 mmol/mol (9%)) despite testing at least 10 times per day.

Insulin regimes - multi dose insulin injections (MDI) of basal bonus should be the regime of choice for all adults with Type 1 diabetes rather than twice daily mixed insulin. However, it does say, 'A number of insulin options are possible depending on what suits you. Diabetes teams will talk to you about this, so you can agree what is best for you.'

In hospital people with Type 1 should be enabled to self-administer insulin if they are willing, able and it is safe to do so.

Full guidelines are on the NICE website <https://www.nice.org.uk/guidance/ng17>

Diabetes (Type 1 and Type 2) in children and young people: diagnosis and management, NG18

The key recommendations for health professionals are:

- Offer children with Type 1 diabetes multi daily injections (MDI) from diagnosis. If this is not appropriate, consider insulin pump therapy.
- Offer carb counting education from diagnosis, and to family members, and repeat at intervals.
- They should test blood glucose levels at least 5 times a day.
- Offer CGM with alarms to children and young people if they have frequent, severe hypos or hypo unawareness.
- Explain to children, young people and their families that an HbA1c of 48mmol/mol (6.5%) or lower is the ideal target to reduce the risk of long-term complications.
- Offer ketone test strips and advise to test if they are ill or have hyperglycaemia.
- Offer children, young people and family members timely and ongoing access to mental health professionals with an understanding of diabetes.

Full guidance at <http://www.nice.org.uk/guidance/ng18/evidence/full-guidance-74186893>

Diabetic foot problems: prevention and management, NG19

The key points in the NICE guidance are:

- People with an active foot problem should be referred to the Multi Disciplinary Team (MDT) within 1 working day, or 24 hours if in hospital.
- Adults should have their feet screened on diagnosis of diabetes and then annually or if a foot problem is identified. People who have a moderate or high risk of the development of a foot ulcer should be referred to the foot protection service within 2-4 weeks for those at high risk and within 6-8 weeks for those at moderate risk.
- Children under 12, their family and carers should be

guidelines

advised on good daily care, warning signs of infection and who to contact if they have concerns. Those aged 12-17 years should have their feet screened annually or if a problem occurs.

- Everyone with diabetes should be informed of their risk of developing foot ulcers and supplied with advice about basic foot care, footwear, blood glucose management, signs of infection and who to contact if a foot emergency occurs.

The full guidance can be found at <https://www.nice.org.uk/guidance/ng19>

Diabetes foot care is treated by the following services:

Foot protection service is usually based in a health centre or GP clinic. It provides foot care for people with diabetes, preventing diabetic foot problems and dealing with foot problems that don't need to be treated in hospital. It should be led by a podiatrist with special training in diabetic foot problems.

Multidisciplinary foot care service is usually based at a hospital and specialises in treating more severe diabetic foot problems. It is made up of different healthcare professionals who work together to deliver care and should include diabetologists, podiatrists and diabetes nurse specialists, as well as other healthcare professionals with expertise in treating and managing diabetic foot problems.

IDDT asks if the updated NICE Guidelines are an academic exercise

IDDT appreciates that the NICE guidelines are evidence-based but we have concerns. There is already a situation where many people with Type 1 diabetes are not achieving the existing HbA1c target so can lowering these targets even further be achieved? Can it really be achieved with the support of structured education programmes? It seems unrealistic when the National Diabetes Audit 2012/13 showed that only 4% of newly diagnosed people were offered such a programme and there is not even a nationally agreed education programme for children and young people with Type 1 diabetes!

Again, while supporting guidelines on foot care, 27.7% of people with Type 1 diabetes are not being given an annual foot check to prevent amputations, 80% of which could be avoided with appropriate care. Referring people with active foot problems to a multidisciplinary foot care service within 24 hours assumes that people can get an appointment with their GP at such short notice, yet we are being discouraged from attending A&E. However, above all, there is no mention of prevention, just treatment once the problems have occurred!

With genuine respect to NICE and its remit, we have to wonder if the updated guidelines are an academic exercise which cannot be put into practice unless there are major changes in the strategy for the care and treatment of people with Type 1 diabetes.

And in the pipeline...

Type 1 diabetes: Integrated sensor-augmented pump therapy systems for managing blood glucose levels

A new blood monitoring device, the MiniMed Paradigm Veo System by Medtronic, has been recommended for people with Type 1 diabetes by NICE in a draft report. This system has a glucose sensor placed under the skin that continuously measures glucose levels, an insulin pump that delivers insulin continuously, and a transmitter that sends glucose level readings wirelessly from the sensor to the pump. This system alerts the user if glucose levels become too high, too low or are rapidly changing and if the system predicts levels will be too high or too low in the near future.

It also includes an automated low glucose suspend function that can operate independently of user action and stops insulin delivery for 2 hours if the user fails to respond to the alert.

In approving this device, NICE recognises that one of the greatest fears for people with Type 1 diabetes, and their carers, is severe hypoglycaemia and the impact of this on quality of life. The final guidance is expected to be published in January 2016.





From our own correspondents

Let's get it into perspective

Dear Jenny,

I would like to air with IDDT concerns about the recent media publicity on an alleged sharp increase in the number of people with diabetes.

About a year ago I was diagnosed with 'borderline' Type 2 diabetes. My GP explained that I only fitted into this category because the goal posts had recently changed. He was not concerned for my health prognosis, but instigated a regime of a short course on the disease, dietary recommendations and a longer course of exercises at our local sports centre, the latter I still attend. I reduced alcohol to about 12 units weekly and made substantial reductions of sweet and fatty foods as a result of which, my waistline has reduced from 42 to 39 inches with a satisfactory BMI. My GP has pronounced that although I still technically have diabetes, current diet is sufficient to control it, and apart from regular blood tests, he proposes no further action.

You will not be interested in the above detail, but it was necessary to the answering of the following:

1. How much of the sharp increase in the numbers was due to the goal post change?
2. Why were the goal posts changed?
3. Am I typical of the patients who are theoretically risk free of the chances of harm from diabetes, and therefore not a potential drain on NHS resources, and who, because of their actions to reduce weight and improve diet, should be seen as contributing to NHS economics, rather than one who is causing the increased burden being publicised?

My bottom line is that the authors of the figures (presumably NHS/government) should be made to qualify them to inform us of (i) the programme in which I took part: (ii) the numbers who did take part and, like me, benefited to the extent that we are no longer a potential burden on the NHS, and (iii) the increase in people with diabetes caused solely by moving the goal posts.

Mr T.M., By email

Not listened to!

Dear Jenny,

I am 64 and developed Type 1 diabetes at the age of 11. I had a triple bypass in December 2014 and I thought my experiences may help others.

I had on my notes that I use animal insulin because I can't tolerate human insulin, I phoned the hospital ward a week beforehand to stress that I use animal insulin and also told them where to obtain it. I was told 'all is in hand'. I was finally admitted to a bed at 10.30pm the night before my operation and although my daughter, who also has Type 1 diabetes, promised that she would make sure I was given animal insulin, they put human insulin in my drip.

After the op, she phoned again and again to tell them I could not tolerate human insulin but eventually my kidneys failed and I was put on dialysis. After becoming very insistent, she was able to speak to a consultant and I was put back on animal insulin. I recovered in 12 hours and came off dialysis.

The 'heart department' staff were superb at their job but could not think laterally and I couldn't believe that the diabetic department had not been involved in any of this.

It is vital that we are listened to, whatever type of insulin we use, in my case the consequences could have been disastrous.

Mrs I.L., South West

Sharps bins

Dear Jenny,

I was surprised to read your article about problems disposing of sharps bins. When they first started issuing them in my area about 8 years ago I just took them back to the chemist where I got them, assuming that was what I was supposed to do, they have always taken them without question.

By email, Cheshire

Note: it just goes to show how this varies with local policies!

Pycnogenol - around for many years

Dear Jenny,

In May 2014, I had my eyes screened and was told my retinas were slightly damaged and was advised to tighten my blood sugar control.

As I have no hypo warnings, this is difficult. I have a habit of collecting bits of news and I found an article from 2002 advising people with diabetes that pycnogenol capsules can help with retinal damage. I have taken one capsule a day ever since and at this year's screening, I was told that my eyes are back to normal.

Mrs V.M., North West

Note: Pycnogenol is made from pine bark from a specific area of France and it has been said to have a beneficial effect on retinopathy for many years but hard scientific evidence is not available. It can be purchased in health food shops.

Jeremy Hunt Watch



July 16th 2015 – New regulator to oversee NHS safe staffing

Health Secretary, Jeremy Hunt, announced that the new health regulator, NHS Improvement (formed by the merger

of Monitor and the NHS Trust Development Authority), will oversee the review on safe staffing levels within the NHS. This will then be independently reviewed by NICE.

All a bit strange because originally NICE was asked to work on this to help to guarantee patient safety, but this unexpectedly stopped in early July. Lord Prior, Minister for NHS Productivity (whatever this is), said that NICE was not instructed by NHS England to stop work on safe staffing levels, but NICE contradicted this in 'Nursing in Practice'! Peter Carter, CEO of the Royal College of Nursing, said: "We all remember what happened at Stafford hospital when finances were allowed to come before patient safety. We can't let that happen again."

The fear is that this decision to use the regulator was financially-based, rather than in the best interest of the patients.

Hunt's obesity plan by the end of the year will focus on home life

Jeremy Hunt's plan for childhood obesity will be announced by the end of the year, and will focus on changes at home. It will also look at the mental health of people who are classed as obese and may have trouble dealing with it, in order to "be very careful that we don't stigmatise or demonise people".

He also said: "There is some evidence from the US that the most rapid period of weight gain is during the school holidays, so it can't be a school-based agenda it has to be a family-based agenda. The plan will be an integrated, cross-government approach that draws on what needs to happen in terms of children walking to school, transport, physical activity in schools, the way products are marketed to children, the way that fast food outlets are able to set up in schools... as well as the very basic issues of diet."

There are some very major changes here cutting across many areas and Mr Hunt faces challenges to get Cabinet agreement on this policy. So we'll see!

NHS overspend

A report issued by the NHS regulators (Monitor and the NHS Trust Development Authority), notably after the Conservative Party Conference, says the NHS overspent

by £930 million in 3 months this year and the annual deficit is likely to be £2 billion. Monitor also says that many foundation trusts are failing to meet targets for A&E waiting times, cancer treatment, non-urgent operations and vital diagnostic tests.

“ NHS England's aim is to also educate obese parents who may not want to be told directly how to lose weight themselves, through providing information to help their children... whilst adults don't like being told by the state, and certainly don't like being told by politicians what they should or shouldn't eat they are interested in knowing what's healthy for their children. (17 Sept 2015)

”

Jeremy Hunt has ordered hospitals to reduce spending by cutting back on agency staff and management consultants, something NHS bosses think is impossible if hospitals are to meet the required staffing levels and other standards. NHS experts warn that they've exhausted their options for saving money and now Jeremy Hunt's cuts are putting patients' lives in danger.

Jeremy Hunt's mishandling of NHS funding is being described by regulators as "the worst financial crisis in a generation", while the press suggest that he knows that being blamed for an NHS crisis could ruin his career!

Government to launch 'Ofsted-type ratings to help to improve diabetes Care

On October 29th, Health Secretary Jeremy Hunt set out new plans for Ofsted-style ratings for local NHS services including diabetes, cancer, dementia and mental health.

This will mean that in England patients will be able to see how their local area's health service is performing in key areas.

The new ratings will be broken down by Clinical Commissioning Groups (CCGs), will be based on local information and be verified by experts in each field. The main aim of the ratings will be to drive improvements by publically naming local health services that could be better. Initial ratings, based on the current CCG assessments, will be published in June next year.

Bits and pieces

Blood glucose meters standards change in May 2016

We have covered this in a previous Newsletter but this is to remind you that new standards for accuracy of blood glucose meters come into force in May 2016.

The standards are set by the International Organisation for Standardisation (ISO). The latest standards were published in 2013 to give manufacturers 3 years to comply and ALL meters must do so. There are 4 revised criteria that must be met for a meter to become CE certified compliant.

The revised standard is ISO 15197 and you can check with your meter manufacturer whether your meter meets the new standard. If your meter is not compliant, then you should be considering a new meter because the older test strips will become unavailable over time. Talk to your health professional about your meter and the strips you require as they should be reviewing their list of meters they recommend.

We're not in the US but this sounds like sensible advice!

A quote from the Journal of the American Medical Association (18th August 2015):

Endocrinologists Tracy Tylee and Irl Hirsch wrote: "Older insulins such as the regular (soluble) and neutral protamine Hagedorn insulins (isophane) may be used as a cheaper and effective alternative to expensive insulin analogs for Type 2 diabetes patients. The affordability of insulin is becoming an important factor in decision making, and clinicians should be aware of the lower-cost options that may be available for their patients."

While the UK health system is different from the US, high costs matter to our NHS just as much, so this seems like sensible advice!

The effects of late night snacks and deprivation of sleep on people with Type 1 diabetes using insulin pumps

This study investigated whether eating late at night and little sleep duration affect glycaemic control in people with Type 1 diabetes using an insulin pump. Of the 148 participants with an average age of 26 years, 7.2% completed questionnaires about sleep (defined by short sleep duration 6 hours) and late night eating habits (defined by snacks after 11 PM).

- Sleep duration was a predictor of both HbA1c and blood glucose levels.
- Lack of sleep was associated with poorer blood glucose levels.

WARNINGS!



Battery issues with Accu-Chek pump could increase hyperglycaemia risk

Roche Diabetes Care has warned users of the Accu-Chek insulin pump to be wary of rapid pump battery depletion or an unexpected shut down caused by people fitting the wrong type of battery to their unit. The regulator, the MHRA, has also issued a medical safety alert. In a letter to healthcare professionals, Roche said an investigation had shown that "low-quality batteries or an incorrectly selected battery type on the pump" was the cause of the issues some users had been experiencing.

- Insulin users should use "high-quality batteries" and the "correct battery type" because an unexpected shut down could result in under-delivery of insulin and therefore hyperglycaemia.
- Lithium and alkaline batteries are preferable but carbon zinc or rechargeable nickel cadmium (NiCd/NiMH) batteries must always be avoided.

Users who have experienced problems can contact the Accu-Chek Customer Care line on 0800 731 22 91.

Cooker induction hobs

One of our members was looking at a new kitchen when he noticed that there was a notice on induction hobs saying, 'As the induction hob creates a magnetic field around its vicinity, it is not suitable for people with a pacemaker or insulin pump!' As he is a pump user, he contacted Medtronic Technical Dept and was told not to even enter a kitchen with an induction hob in use. Intense magnetic fields can cause insulin pumps, or pacemakers, to be damaged and need replacing.

- There was a correlation between frequent late night snacking and increased blood glucose levels but not with a rise HbA1 values.

The researchers concluded that people with Type 1 diabetes using a pump should avoid late night snacking and get adequate rest at night. (*J Diabetes Investig.* 2015;6(4):460-4)

Changed messages again

A review of existing research involving over 300,000 people, suggests that for healthy people, a reasonable amount of saturated fat in the diet does not pose a health risk. However, trans fats, which are being removed from all foods, were associated with an increased risk of death from any cause and from cardiovascular disease and a diagnosis of coronary heart disease.

Saturated fats are in animal products like butter, egg yolks and salmon and the general recommendations are that they should make up no more than 10% of daily calories. Saturated fat intake was not linked to coronary heart disease, cardiovascular disease, stroke or Type 2 diabetes, but its link to the risk of death from coronary heart disease was unclear so the researchers suggest that there should be more research.

One of the researchers commented that the study shows that focusing on reducing saturated fats as the primary goal in eating well is not quite right and that eating well means replacing saturated fats with polyunsaturated fats instead of carbohydrates, especially refined and processed carbs, which is what usually happens. (*The BMJ*, online August 11, 2015)

High-protein diet may improve glucose control

German researchers told the European Association for the Study of Diabetes annual meeting that a high-protein diet

may help people with diabetes have better control blood glucose levels, whether it's plant or animal protein. The study found a six-week high-protein diet improved glucose metabolism and reduced liver fat and did not adversely affect kidney function. (Sept 2015)

Diabetes prevention tied to timing of taking blood pressure drugs

A Spanish study has shown that people who took their blood pressure medications at bedtime had a 57% reduced risk of developing Type 2 diabetes, compared to those who took the drugs in the morning. Researchers followed over 2,000 people with high blood pressure, but not diabetes, for six years and found a 30% reduction in a person's risk of developing Type 2 diabetes for every 14-point decrease in their average sleeping systolic blood pressure. (*Diabetologia*, Sept 2015).

Does eating fish reduce the risk of depression?

A new study suggests that people who eat lots of fish may be at lower risk of having depression compared with people who don't eat much fish.

Depression is usually treated with antidepressants and/or psychotherapy but some studies have investigated preventing it from starting in the first place. Some studies suggest that a healthy diet may play a role in reducing the risk of developing depression. These have shown that a diet containing lots of fruit, vegetables, fish and whole grains is associated with a reduced risk of depression while others have looked specifically at fish and its role in reducing the risk of depression. Interestingly, when the researchers looked at the information by continent, they found that the association between high fish consumption and depression only existed in the combined European studies. (*Journal of Epidemiology & Community Health* 11 September 2015).

Tipping isophane (NPH) insulin before injecting

When insulin only came in vials, we were always taught to tip the vial up and down 20 times before injecting isophane (NPH) insulin. Isophane insulins, such as Hypurin Isophane, Insulatard, Humulin I and the premixed animal and human insulins, are an insoluble mixture of crystals and liquid which must be re-suspended before injecting.

Many people use these types of insulin but usually in pens rather than vials. Researchers are warning that pens containing isophane should be tipped 20 times too. They investigated what difference it makes if people do not tip their pen and also if the way they held the pen during the injection made any difference.

The results were surprising and showed a high variability in blood glucose levels depending on whether or not the pen was tipped and there were even greater differences depending on the position of the pen - whether it was vertical or horizontal and with the tip up or down.

- Not tipping the pen before injecting could result in lower insulin levels in the blood if you inject with the needle flat or pointing up or higher insulin levels if you inject with the needle facing down.
- If the insulin is not tipped before injecting, your body would feel the effects of insulin earlier if you injected with the needle down or later if you injected it flat or needle up.
- Insulin levels could vary by as much as 23% and blood sugar control could vary by as much as 62%, depending on whether NPH insulin is re-suspended (tipped up and down) before injecting, or not.

The researchers warn everyone using isophane and premixed insulins containing isophane (NPH) in pens, to tip the pen up and down 20 times. (*Diabetes Care*, Sept 2015)

Acetaminophen (paracetamol) falsely raises continuous glucose monitor values

Acetaminophen is the term used in the US for paracetamol, the over-the-counter medicine used for pain relief. Interestingly, recent research has shown that continuous glucose monitors may inaccurately give higher glucose levels when users are taking paracetamol compared to usual blood glucose meters. The greatest difference of just over 3.3mmol/l was found 8 hours after taking paracetamol. (*Diabetes Care*, August 15th 2015)

The winners of IDDT's lottery draws!



We are delighted to announce the winners of the lottery draws for the last 3 months. They are as follows:

Winners of the August 2015 draw are:

- 1st prize** of **£182.40** goes to Ann from Coleford
- 2nd prize** of **£136.80** goes to anon. from Nottingham
- 3rd prize** of **£91.20** goes to William from Tonbridge
- 4th prize** of **£45.60** goes to Gwyneth from Bridgend

Winners of the September 2015 draw are:

- 1st prize** of **£212.16** goes to John from Carmarthen
- 2nd prize** of **£159.12** goes to John from Bournemouth
- 3rd prize** of **£106.08** goes to Ian from Gravesend
- 4th prize** of **£53.04** goes to Herbert from Exeter

Winners of the October 2015 draw are:

- 1st prize** of **£240.96** goes to Sylvia from Stoke-on-Trent
- 2nd prize** of **£180.72** goes to Glenys from Coleford
- 3rd prize** of **£120.48** goes to Eric from Nantwich
- 4th prize** of **£60.24** goes to Anon from Belfast

Note: the winners of the draws for November, December 2015 and January 2016 will be announced in our March Newsletter or 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

Just a note - one of our members received a 'cold call' asking her to join the lottery for diabetes. She didn't think that we would do this and thought it might be a 'con'. Wisely she asked for the number of the company and their answer-phone message was for a telemarketing company called Insight Fundraising, working on behalf of Diabetes UK. Just to assure our members, IDDT does not use cold calling or any similar methods of fundraising.

TIGHTENING OF THE RULES!

For charities

Following the criticisms of charities for their methods of fundraising, especially cold calling and continually sending people begging letters, a review is recommending major changes with a new 'Fund-raising Preference Service'. The following are among the review's recommendations:

- A new regulator (the Fundraising Regulator) would have control over the rules and would report to a parliamentary committee.
- This would be funded by a levy on all charities that spend over £100,000 on fundraising. (Not IDDT then!)
- This new service will mean that the public have a 'reset' button for communications from charities, ensuring they only hear from those they want to - an opt in system.
- Charities seriously or persistently breaching the rules would be named and shamed and could be forced to halt specific methods of fund-raising.

Up to now, charities have largely been self-regulating in their activities and these proposals are designed to re-establish the public's faith in charities.

For the pharma industry

In September, the Council of Europe overwhelming voted in favour of changes that tighten up regulations of the pharmaceutical industry so that:

- Companies must ensure absolute transparency about the real costs of research and development.
- They must adopt a stricter marketing authorisation policy, such as added therapeutic value.
- Mandatory publishing of the results of all clinical tests on new medicines.
- Companies are obliged to declare linked interests with all health sector people.
- A mandatory levy on promotional activities of the industry to be used to finance a public fund for the independent training of health-care professionals
- Prohibit any agreement which aims to delay the marketing of generic medicines for no medical reason.
- Impose dissuasive fines of a percentage of their turnover for any illegality carried out by drug companies

NHS Campaign – Stay well this winter

The 'NHS Stay Well this Winter' campaign is a drive to help people stay well this winter starting with a national flu vaccination programme for children, which is extended to children in school years 1 and 2 who will be eligible to receive the free nasal spray vaccine. The groups being offered the adult flu vaccine are:

- Pregnant women
- Those aged 65 or over
- Those aged under 65 with long-term conditions (this includes diabetes)
- Carers

As well as protecting against flu, the campaign advises people over 65 or those with long-term conditions to prepare for winter with advice on how to ward off common illnesses;

- Keep warm – heat your home to least 18 degrees C or (65F) if you can.
- If you start to feel unwell, even if it's just a cough or a cold, then get help from your pharmacist quickly before it gets more serious.
- Make sure you get your prescription medicines before pharmacies close on Christmas Eve.
- Always take your prescribed medicines as directed.
- Look out for other people who may need a bit of extra help over winter.

Up to Date Patient Records

From the beginning of October, all NHS and Social Care professionals have a new duty to record a patient's treatment in their Patient Record, including the patient's NHS number, to ensure the next professional to treat the patient has their up-to-date record. This has been included in the Health and Social Care (Safety and Quality) Act 2015.

97% of GPs are now able to give patients a digital Patient Record, so this change is a move to patients being able to record and track their own or a loved one's healthcare on their PC, smartphone, or iPad in the same way as obtaining an online bank statement, flight booking or telephone usage.

Using GP online services mean that you can now contact your GP to book appointments, order repeat prescriptions as well as access summary information in your medical records. By 2018 every person will be able to access their full health records online. GP practices can still be contacted by phone or in person but if you wish to use the online service, you should ask your GP surgery to set it up next time you visit.

Ambulance services are increasingly reliant on the private sector

In 2014-15, England's 10 ambulance services spent £57.6m on private or voluntary services – an increase of 156% since 2010-11. This was for 333,329 callouts that were answered by independent services for nine trusts last year. This is thought to be due to shortage of NHS paramedics and a lack of training places.

Last year the NHS spent a record £41m on private ambulance services from companies, such as Medical Services Ltd and ERS Medical. In addition, total spending for voluntary services was £16.5m in 2014-15 compared to £6.8m in 2010-11. Voluntary services include St John's Ambulance and the British Red Cross who now recruit paid staff who must pass an assessment.

Closure of GP practices

A report in The Independent (1st June 2015) stated that thousands of patients have had to find a new GP because their local practice closed due to staffing shortages, and workload pressures.

Freedom of Information requests by the GP magazine, Pulse, have shown that in England, Scotland and Wales, 61 practices have closed since April 2013 forcing more than 160,000 people to register with a new GP practice. The Chair of the British Medical Association's GP committee told Pulse that closures are putting pressure on other GPs leaving some practices on the verge of collapse, while others are significantly reducing the level of services they can offer.

Government information published last year showed that more than 500 practices closed between 2009 and mid 2014 which includes practices lost through mergers and takeovers.

Patients suffering due to poor hospital discharge

According to report from Healthwatch England, 'Safety home: what happens when people leave hospital and care settings', hospitals are discharging vulnerable patients without first checking they have the necessary social care support in place.

- In the last 3 years, nearly 20% of patients felt they did not have the support they needed after discharge from hospital. An additional 26% said they felt this problem affected a relative or friend.
- One in eight patients felt unable to cope at home and many had to be readmitted. In 2012-13 there were more than 1 million emergency readmissions within 30 days of discharge costing an estimated £2.4 billion.

The report gathered evidence from over 3,000 people who were older, homeless or had mental health problems and showed some common failings including:

- Not routinely asking patients if they have a home or safe place to be discharged to.
- Medication details not being passed on to GPs and carers.
- Relatives not being informed when their family members are discharged.

The report also showed that people feel they are not involved in decisions about their care or given the information they need, that their full range of needs is not considered and they are not treated with appropriate respect because of their conditions and circumstances.

Healthwatch England is working with the Department of Health to address these problems. However, NICE does have guidelines for safe hospital discharge and if these were followed many of the problems would not occur. Once again, we have to question why NICE guidance goes unheeded and to the detriment of patients.

In the NEWS

Obese people who refuse to lose weight could lose benefits

In July, several papers covered an announcement by David Cameron that overweight people who refuse to lose weight could see their benefits cut or suspended. He told reporters, "We must look at what we can do when people simply say no thanks and refuse help but expect taxpayers to carry on funding their benefits." He added, "Over the next 5 years, I want to see many more people coming off sick benefit and into work." Apparently, the aim of the policy is to make sure more people seek treatment.

Professor Dame Carol Black, Chair of the Nuffield Trust, will carry out a major review of the welfare system and will report back to the Prime Minister.

This will be interesting because as we reported in our July Newsletter, the government is going further than NICE guidelines in restricting who can have bariatric surgery and we already know that people are having difficulty getting on weight loss programmes. Finally, who is going to be the judge of whether a person is actually refusing treatment? Yet another job for GPs?

Patient safety incidents

The Medication Safety Officer for independent pharmacies with less than 50 branches, issued a press release about his first report. One of the problems highlighted was errors occurring with medicines with a similar looking or sounding name. Examples given were the insulins, NovoRapid and NovoMix. The report advised pharmacists to show the box to the patient before handing it over. As ever, it is always important that you check you have received the correct insulin before leaving the pharmacy.



Victoza not to be used in Type 1 diabetes with insulin

Novo Nordisk has been carrying out trials of Type 2 drug, Victoza (liraglutide) with insulin in people with Type 1 diabetes. However, although HbA1cs were not better or worse, the number of severe hypos was greater and there was a higher rate of symptomatic hypoglycaemia in people taking Victoza and insulin compared to those taking insulin alone. So in August 2015, Novo Nordisk announced that it is not going to apply for approval for use of this combination.

IDDT Note: We have received quite a few concerned calls from people with Type 1 diabetes who have been prescribed Victoza in addition to their insulin. This confirms that Victoza is not approved for use in people with Type 1.



Islet transplantation is safe and efficient

Research in France has shown that islet transplantation seems safe and efficient for restoring glycaemic control in Type 1 diabetes and islet transplantation restores good and lasting glycaemic control and prevents severe hypoglycaemia. (Diabetes Care, June 2015)

Between September 2003 and April 2010, 44 patients received islet transplantation, 24 islet transplantation alone and 20 islet transplantation after kidney transplantation. In both groups the recipients achieved HbA1cs below 7% (53mmol/mol) and were free from severe hypoglycaemia. During the 5 years follow up:

- 75% of the patients did not have to inject insulin for an average of 19.25 months.
- 66% experienced at least one adverse event with 33 % of these events thought to be due to immunosuppression.

Type 1 diabetes trial patient insulin-free after new treatment

A new Type 1 diabetes trial carried out at the University of Miami has left one participant completely insulin-free after the implantation of islet cells within what is called a biological scaffold. The participant, aged 43, underwent the procedure in August and for the first time since she was diagnosed with Type 1 diabetes aged 17 now naturally produces her own insulin.

The trial is working towards the development of a mini-organ that mimics the way a healthy pancreas works. The organ, the DRI BioHub, allows people with Type 1 diabetes to produce their own insulin. The islet cells are implanted using a gel-like material that can be applied to the omentum, a highly vascularised tissue that covers abdominal organs.

Pharmaceutical NEWS

Is the insulin patch a reality?

An insulin patch that mimics the action of the pancreas and releases insulin when necessary has been successfully tested in mice. It is now being tested in humans to see if it is a painless alternative to insulin injections. If so, it could increase compliance and greatly reduce the number of daily injections. If approved for use in humans, an insulin patch could improve blood glucose control in people dependent on insulin, reduce the long-term complications and increase the quality of life.

A disposable sweat patch could calculate the amount of glucose in the blood

Eccrine Systems are developing a multiple layer patch which manages the flow of sweat so that information

(known as biomarkers) can be collected about how the body behaves. This includes glucose, hormones, proteins and other molecules that are produced during metabolism.

There are about 800 biomarkers in sweat and advances in technology now allow for tiny amounts of liquid to be manipulated by sensors and valves. The sweat patch absorbs sweat from an absorbent adhesive to the sensor which measures glucose through a special coated membrane. Once the glucose concentration is measured, this information is wirelessly transmitted to monitoring systems.

For people with diabetes, this could be an end to finger-prick testing but it is still at the early stages.

At present, people with Type 1 diabetes who have islet cell transplants need to take immunosuppressant drugs to prevent the immune system from attacking the new, transplanted cells but the researchers are hopeful that this new development will remove the need for immunosuppressants.

Fractures common in people with Type 1 diabetes of all ages

Research carried out at the University of Rochester and the Children's Hospital of Philadelphia evaluated information from The Health Improvement Network on 30,394 participants aged 0 to 89 years with Type 1 diabetes and 303,872 randomly selected matched participants without diabetes (controls). The aim of the study was to determine the effect of Type 1 diabetes on the risk for fracture. The findings showed:

- A history of fracture before the start of the study was more common in people with Type 1 diabetes (19.6%) compared with the controls (17%).
- During the study more fractures occurred in those with Type 1 (8.6%) compared with the controls (6.1%).
- The increased risk of fracture was found in all age groups with lower extremity fractures and hip fractures being more common in people with Type 1 diabetes than the controls.

The researchers concluded that there is growing evidence to suggest that Type 1 diabetes results in impaired bone health and skeletal fragility and this risk begins in early childhood and lasts throughout life. (Diabetes Care, July 2015)

Skipping Breakfast – not for people with diabetes

This tendency to miss breakfast has already been linked to the growing epidemic of obesity and cardiovascular problems and may also put the health of people with Type 2 diabetes at risk. It was commonly thought that skipping breakfast would lower blood sugars and reduce calories leading to weight loss but researchers from Israel and Sweden have found that not eating until noon, triggers high sugar spikes after lunch and increases blood sugar spikes for the rest of the day.

Participants in the study ate the same number of calories and the same balanced lunches and dinners over 2 days but on the first day they ate breakfast and on the second day they ate no breakfast. The results were:

- On the day breakfast was skipped the blood glucose levels were 14.8 and 16.5 after lunch and dinner.
- On the day breakfast was eaten they were 10.6 and 11.9 after lunch and dinner.

The researchers point out that reducing the carbohydrates in lunch and dinner will have no effect on reducing the raised blood glucose levels if people skip breakfast. They suggest that the insulin-producing pancreas beta cells lose their 'memory' due to the prolonged time between the evening meal and the next day's lunch. Therefore it takes additional time after lunch for the beta cells to recover, causing small and delayed insulin responses which result in higher spikes in blood glucose levels throughout the day. Not eating breakfast also increases the fatty acids in blood which makes the insulin less effective at lowering blood glucose levels.

The researchers recommend that people with Type 2 diabetes do not skip breakfast and they intend carrying out a similar study in people with Type 1 diabetes. (Diabetes Care, July 2015)



SNIPPETS

NHS complaints

In August it was announced that for the last financial year, the NHS received 562 complaints per day. The conclusions are obvious and don't warrant comment!

Diabetes in Scotland

Doctor-diagnosed diabetes prevalence was 6% for adults (8% for men and 5% for women) in 2014. Prevalence among men was significantly higher in 2014 (8%) than in 2003 (4%).

No time off work for voluntary work

The Conservative manifesto included commitments to give workers time off to do voluntary work, however the FT and others report that the proposal is being quietly shelved. It reports that one government insider speculated the Government might drop the pledge completely as he told the FT "It has not been mentioned [since the election] and there are no plans in the pipeline for a consultation". The party had previously added three days to the 28 days of paid leave a year to which full-time workers are already entitled as part of their election platform.

Coca Cola disclose organisations they fund

In September Coca Cola revealed that they spent US\$116.6million in the past 5 years on scientific research, and health and wellbeing partnerships. These include \$2million to the American Cancer Society, \$3.1million to the American College of Cardiology and the Academy of Nutrition and Dietetics. The Lancet suggests that ultimately the goals of Coca Cola and these medical organisations and researchers that wish to improve public health are very different. Medical health professionals must guard against any possible conflict or perceived conflict when working to improve public health and preventing conditions such as obesity and Type 2 diabetes. (The Lancet, Oct 3rd 2015)

Inhaled insulin gets off to slow start in the US

Sanofi's inhaled insulin, Afrezza which received approval in the US last year, has had lower than expected sales during 2015. The delay is said to be due to several causes one of which is that the drug's label states that it should not be used by people with existing lung disease or serious asthma. This led to a regulatory requirement that people who may take Afrezza have to go through a lung function test first and only if this is proved to be fine, can the person go back to the doctor for a prescription which can take weeks to process and may put people off using it. In addition, many physicians are still unaware that Afrezza is on the market in the US or they remember the first inhaled insulin, Exubera, introduced in 2007 but this was removed from the market due to poor uptake and safety concerns.

Lilly backs Bluetooth insulin device and app firm

Eli Lilly has invested in Companion Medical, a company that's developing a Bluetooth-enabled insulin pen and associated smartphone app. Lilly will sit on the board of Companion Medical and it is hoped that one day Companion's smart pen and app will fill a gap for the millions of people with diabetes.

Most people derive no benefit from a gluten free diet

We hear quite a lot about often famous people who do not have coeliac disease going on a gluten free diet. But a recent study found that while a gluten-free diet has a therapeutic benefit for people

with gluten-related disorders, the general population derives no benefit from it. Researcher at Arizona State University said there has been a "corrosion of common sense" with so many people jumping on the gluten-free bandwagon. (Journal Academy of Physician Assistants, Aug 2015)

Inhaled cannabis reduces pain in diabetic neuropathy

People with diabetic neuropathy showed improvement in pain after treatment with inhaled cannabis. The research compared three dosages and a placebo and the reduction was dependent on dosage. Treatment with cannabis had modest effects on cognition. (The Journal of Pain, July 2015)

Daytime sleepiness, napping tied to diabetes

A Japanese review of 10 studies involving 260,000 people showed that the risk of Type 2 diabetes was 56% higher among those who felt extreme sleepiness and 46% higher among those who took naps of 60 minutes or more during the day, compared to those who weren't extremely sleepy or took no or shorter naps. (Presented at the European Association for the Study of Diabetes, 2015)

Study says unhealthy diet is biggest factor in early death

A study, the Global Burden of Disease published in The Lancet in September has shown that eating an unhealthy diet is the biggest contributor to early death worldwide. The top risk factors linked to early death include high blood pressure and blood glucose, smoking and obesity. The study also ranked diseases and risk factors that cause death and disability in England compared to other high income countries. Between 1990 and 2013, life expectancy in England increased compared to other EU countries but this was not matched by levels of improvements in ill health. So as a nation we are living longer but spending more years in ill health, often with several conditions.

High sugars after eating and missing work

A survey by insulin manufacturer, Novo Nordisk, showed that 27% of people with diabetes who had hyperglycaemia (high) after eating reported having missed any work. 19% left work early, 14% got to work late and 10% missed a whole day of work. The survey involved 906 adults with Type 1 and Type 2 diabetes also showed 77% of those with Type 2 diabetes reported work productivity problems, compared to 63% of people with Type 1 diabetes. (Presented at the annual meeting of the European Association for the Study of Diabetes, Sept 2015)

From your editor – Jenny Hirst

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