



From the desk of the Chairman, Dipesh Patel

2021 continues to be dominated by the COVID-19 pandemic. As I write this report during half term and the late changing of seasonal colours, we are continuing to see high rates of new infections daily. Thankfully, numbers of patients in hospital are not rising significantly so far, but the effect of the winter months is uncertain. Reassuringly, double vaccination rates in the UK and in our patients is high, and the booster jab programme appears to be going well.

The COncise adVICE on Inpatient Diabetes (COVID) resources led by Gerry Rayman continues to provide much good support (<https://abcd.care/coronavirus>). Existing resources have been updated and new resources such as the post COVID-19 diabetes discharge pathway, risk stratification and follow-up guidance for people being discharged from secondary care have been added. I sincerely hope we do not need much of this in the coming months.

ABCD continues to run our educational programme of monthly webinars featuring a wide range of topics. Members can catch up with our webinars on demand at their leisure via our website at <https://abcd.care/abcd-webinars-series> and we have aimed to partner with organisations such as YDEF, GIRFT, PCDS and JBDS so that current and future webinars will have wide interest.

This year's DTN meeting and ABCD Annual Conference proved to be outstanding successes, and we have been delighted with the feedback even though the events had to take place virtually. Over 334 delegates registered for our DTN meeting with 283 attending live and 213 delegates registered for the ABCD conference with 188 attending live. Our thanks go out to all the speakers and faculty for their support in ensuring such high-quality relevant sessions in our flagship events.

During the year we have also run a number of regional meetings and resumed our Consultant Development Programme, which was the first face-to-face meeting for ABCD since the pandemic. We have face-to-face sessions planned at the Diabetes Professional Conference (DPC) in November in London and

hope this provides a safe environment for many of us to meet once again. You can also catch the ongoing sessions and workshops with our EXTOD programme (Exercise and Nutrition in Type 1 Diabetes) <https://abcd.care/extod-2021/programme>. Fortunately, many events have an 'on-demand' facility for more convenient viewing. Our educational programme concludes this year on 2 December with our Southeast regional meeting (<https://abcd.care/events/abcd-regional-meeting-south-east>).

I am delighted to report that our membership is growing by almost 20% in a year, with more SpRs joining the association, so our future remains bright and thriving. Reassuringly, we have a strong voice and presence with policy makers and stakeholders in the diabetes community. We continue to work with and provide specialist input to other diabetes organisations and the NHS including the RCP, NICE, NHSE, JBDS and many more. Our participation with these organisations helps us ensure that the voice of the specialist diabetologist is featured and carefully considered in new guidance and reports.

One such recent collaboration with the UK Kidney Association (previously known as Renal Association) has resulted in joint management guidelines on monitoring and treatment approaches designed to improve safety and assist in more effective treatment of individuals who have advanced chronic kidney disease requiring dialysis alongside their diabetes. This had led to a number of publications and key updates in 2021 which I would recommend reading. These can be found at <https://abcd.care/position-papers>.

This year we have further invested in our flagship journal *British Journal of Diabetes* (BJD) and huge amounts of work are going on behind the scenes to prepare the journal for PubMed submission early in 2022. As part of these preparations, we have updated the BJD website where you can already view our articles ahead of print (<https://bjd-abcd.com/index.php/bjd/issue/view/5>). Please do submit your work to the BJD as it has a wide specialist readership. Submission is easy via our portal and we are happy to support those who are new to submitting their work (<https://bjd-abcd.com/index.php/bjd/submit-a-manuscript>).

This year, in partnership with the Diabetes Care Trust, we have also undertaken a major piece of work to formalise our process for ABCD research grant submissions in line with Association of Medical Research Charity (AMRC) guidelines, and we have already reviewed the first round of grant applications and need to publicise this to everyone who is looking for early research funding. This work is designed to promote and support early clinical researchers in diabetes and is being led by Dr Parth Narendran. Our thanks to him and the entire academic subgroup for their dedication and commitment to this important work-stream.

The ABCD Diabetes Technology Network (DTN) continues to grow and thrive. The amazing collection of resources via the ABCD DTN web pages include educational resources from a virtual showroom demonstrating devices and their use, expert views on devices, educational resources for patients, a virtual academy and a series of videos on virtual consulting. This year we have also undertaken a series of webinars on closed loop systems which have been very successful and are available for on-demand viewing. I am delighted ABCD have been asked to audit the forthcoming NHSE closed loop pilot initiative. Thanks go to Professor Pratik Choudhary and his colleagues for their vision and enthusiasm in this important and evolving area.

Make sure you also save the date of 11 January 2022 for our once-in-a-generation meeting to commemorate the centenary of the first administration of insulin into a human. ABCD has ambitious plans for this free special event to be hosted at the Royal College of Physicians in London to commemorate the occasion. Many thanks to Dr Bob Ryder for leading to curate this quite amazing programme.

Our nationwide audit programme continues to go from strength to strength led by Dr Bob Ryder. This year we have published three new publications from the real-world audit of the FreeStyle Libre system (FSL) in people with type 1 diabetes who use FSL. Find out more at <https://abcd.care/announcement/three-new-publications-abcd-nationwide-freestyle-libre-audit-published-during-september>. The worldwide audit of testosterone

deficiency in men with type 2 diabetes has recently been launched so please submit your own data for this global audit, http://www.diabetologists-abcd.org.uk/n3/previous_ABCD_audits.htm. We have an active ABCD COVID-19 national audit group who are analysing and maximising the learning from the pandemic, now with international collaborators. I am sure this work will lead to more exciting outputs with global relevance.

We hope you continue to enjoy our fortnightly newsletters which help keep you abreast of new developments, news, events and other diabetes-related information. If you have news to share with the membership, please feel free to drop us a line at info@abcd.care.

I would like to take this opportunity to thank and acknowledge the hard work of Dr Susannah Rowles, Honorary General Secretary, and Dr Andrew Macklin, Honorary Treasurer who have both completed their terms of office this year. I would like to warmly welcome in Vijay Jayagopal as our newly elected treasurer, whose appointment was recently ratified at our AGM. The role of treasurer is hugely important and mainly goes unseen by the membership, but nevertheless involves a huge dedication and commitment. We will share news of the new incoming general secretary with you very soon.

As chair of the ABCD committee, I would also like to remind everyone and wish to thank all our corporate sponsors of both ABCD and DTN, without whom few of the programmes and supporting activities would be possible. Our sponsors are AstraZeneca, Besins Healthcare (UK) Ltd, Lilly, Novo Nordisk, Abbott Laboratories Ltd, Roche Diabetes Care, Insulet International Ltd, Medtronic Ltd, Medtrum Ltd, ViCentra, Advanced Therapeutics (UK) Ltd, Air Liquide Healthcare Ltd, CamDiab and Dexcom.

Finally, I wish you all a happy, healthy Diwali, Hanukah, Christmas and New Year and hope that you are all able to spend quality time away from work with friends and loved ones. In the meantime, between fireworks and mince pies, do make sure you register for our 100 Years of Insulin centenary meeting (11 and 12 January 2022 at the RCP, London) as numbers are limited. Do join us for a special dinner event on the 11th, which promises to be a fantastic commemoration of this centenary. You can register now at <https://abcd.care/events/abcd-meeting-commemorate-centenary-first-administration-insulin-human>

Dipesh Patel, ABCD Chair

From the desk of the News Editor, Umesh Dashora

JBDS News (Ketan Dhatariya)

- The medical variable rate insulin infusion (VRII) guideline is being updated, as is the enteral feeding guideline. Questionnaires will be going out on how teams are using them at the moment, so watch out for them in the next few weeks. The updated versions of the hyperosmolar hyperglycaemic state (HHS) guideline will be ready in a few weeks, as will the peripartum guidelines, so look out for them.
- We have also revised the update of the self-management guideline after some input from the CQC.
- We are also developing a new guideline on the use of devices in hospital.
- Due to changes in working circumstances, some of the JBDS steering group have stepped down and vacancies will be advertised in the very near future, so look out for these.
- You can follow JBDS on Twitter @JBDSIP or on Facebook (www.facebook.com/JBDSIP/).

Results of Rowan Hillson Inpatient Safety Award 2022

This JBDS-IP award for 2021 is postponed due to the second wave of COVID-19. The project is led by Umesh Dashora and Erwin Castro.

In view of the second wave and on the suggestion of Dr Rowan Hillson, and the subject of the award will be modified to include the fantastic innovations that people have made during this pandemic. The title for the 2022 award will be 'The Rowan Hillson Inpatient Safety Award – The best interventions: Re-designing, rebuilding and maintaining safe inpatient diabetes care during COVID'. Entries are welcome from September, with the last date in February 2022. Please prepare for a submission in September from your team.

<https://abcd.care/announcement/rowan-hillson-inpatient-safety-award-2021-relaunched>

Guidance for the use of SGLT-2 inhibitors in general practice

Dr U Dashora and co-authors from the CaReMe group have produced guidance for GPs on how to use SGLT-2 inhibitors safely.

Dashora U, *et al.* Manage diabetes and comorbidities with a joined-up strategy. Guidelines in Practice

<https://www.guidelinesinpractice.co.uk/diabetes/manage-diabetes-and-comorbidities-with-a-joined-up-strategy/456004.article>

Dr Bob Ryder gets a lifetime achievement award (Dipesh Patel)

ABCD would like to congratulate Dr Bob Ryder on his recent Lifetime Achievement Award. Dr Ryder received this award during the 7th International Diabetes and Endocrine Conference for services to MRCP and UK Audits via ABCD. I am sure you will join me to wish him many congratulations on this achievement!

From the desk of Rebecca Reeve (Sanofi)

UK NHS drops from 1st to 4th in global rankings

A study from the Commonwealth Fund has ranked health systems in 11 comparator countries against access, care process, equity, efficiency and healthcare outcomes. In terms of overall ranking, the UK health system has moved down from 1st to 4th out of 11 comparator countries. Norway now takes the highest overall rank, despite Norway (10.5%) and the UK (10.2%) having spent similar amounts on healthcare as a percentage of GDP in 2019. The UK ranked 9th out of 11 comparator countries in terms of health outcomes, despite coming 4th for access to care, efficiency and equity. Asthma was one of the diseases used to measure performance with regard to avoidable hospital admissions and population health outcomes.

<https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly#rank>

NHSE waiting lists could rise to 14 million by next autumn

Institute for Fiscal Studies (IFS) research warns that up to 14 million people could be on NHS England (NHSE) waiting lists by next autumn. The IFS projection comes as NHSE consultant-led referral to treatment figures show how, between March 2020 and March 2021, 7.4 million fewer people joined the waiting list. A record number are currently waiting for surgery with over 385,000 patients waiting over a year, compared with 1,600 before the pandemic. The British Heart Foundation similarly warns that the number of people awaiting heart surgery in England could rise by over 40%, estimating it may take 5 years to overcome the backlog in cardiac care.

Could NHS waiting lists really reach 13 million? Institute for Fiscal Studies (IFS) <https://ifs.org.uk/publications/15557>

Amanda Pritchard announced as NHSE Chief Executive

The current NHS England (NHSE) Chief Operations Officer, Amanda Pritchard, has been announced as NHS Chief Executive with effect from 1 August. Prichard was previously the Chief Operating Officer of NHS England, and Chief Executive and Chief Operating Officer of NHS Improvement for two years, from July 2019 to July 2021. Before working for NHSE, Pritchard was Chief Executive of Guys and St Thomas' NHS Foundation Trust for two and a half years.

<https://www.england.nhs.uk/2021/07/amanda-pritchard-appointed-nhs-chief-executive/>

Third of middle-aged people have ≥3 chronic diseases

A UCL study has found that more than one in three UK adults aged 46–48 years have at least two chronic health conditions including poor mental health and diabetes. 34% of this cohort (N=7,951) had multiple chronic health problems, with 21% having recurrent back issues and 19% with mental health problems. 16% reported high blood pressure, 12% asthma or bronchitis, 8% arthritis and 5% diabetes.

<https://bmcpubhealth.biomedcentral.com/articles/10.1186/s12889-021-11291-w>

Shortage of blood collection tubes

GPs have been told to stop routine blood tests until 17th September and hospitals must cut the number of tests by 25% in response to a shortage of blood collection tubes. Shortages are said to be due to 'UK border challenges' as well as a surge in demand, in part due to COVID testing. Many patient charities have expressed concerns that this would delay the diagnoses for many patients due to cancelled appointments. :

<https://www.thetimes.co.uk/article/lack-of-collection-tubes-forces-gps-to-stop-blood-tests-for-three-weeks-hlg5c86c5>

Interesting recent research (Umesh Dashora)

A rapid-fire collection (extract) of interesting recent developments in diabetes

Authors, Journal	Type of study	Main results
Reid <i>et al</i> , <i>Diabetologia</i>	Retrospective cohort study	Continuous subcutaneous insulin infusion reduces the incidence of retinopathy compared with multiple daily injection therapy CSII was associated with reduced risk of retinopathy progression over 2.3 years compared with those continuing MDI, with greatest benefit for those with the highest baseline HbA1c. The reduction was not related to improvement in HbA1c Reid LJ, Gibb FW, Colhoun H, et al. Continuous subcutaneous insulin infusion therapy is associated with reduced retinopathy progression compared with multiple daily injections of insulin. <i>Diabetologia</i> 2021;64:1725–36. https://doi.org/10.1007/s00125-021-05456-w
Sasaki <i>et al</i> , <i>Diabetologia</i>	Analysis of pancreatic samples	Reduced beta cell number rather than size is the major contributor to type 2 diabetes The reduction in beta cell mass in people with type 2 diabetes is more due to reduction in the number of beta cells (37%) than to diminished cell size (10%), is associated with the diagnosis of diabetes and is inversely correlated to HbA1c. Sasaki H, Saisho Y, Inaishi J, et al. Reduced beta cell number rather than size is a major contributor to beta cell loss in type 2 diabetes. <i>Diabetologia</i> 2021;64:1816–21. https://doi.org/10.1007/s00125-021-05467-7
Saeedi <i>et al</i> , <i>Diabetes Res Clin Pract</i>	Systematic review	Increasing prevalence of gestational diabetes when implementing IADPSG criteria There was a 75% increase in the prevalence of GDM in this systematic review of 31 cohort and cross-sectional studies over 8 years including nearly 137, 000 women when new IADPSG criteria were used. Saeedi M, Cao Y, Fadl H, Gustafson H, Simmons D. Increasing prevalence of gestational diabetes mellitus when implementing the IADPSG criteria: a systematic review and meta-analysis. <i>Diabetes Res Clin Pract</i> 2021;172:108642. https://doi.org/10.1016/j.diabres.2020.108642
Corona <i>et al</i> , <i>Rev Endocr Metab Disord</i>	Systematic review and meta-analysis	Diabetes is the most important factor in COVID-related mortality Diabetes was the strongest predictor of mortality with COVID-19 after adjustment for confounders in this review which included nearly 3,700 articles, 87 studies, 35,000 patients and 6,000 deaths. Chronic obstructive pulmonary disease and malignancies were the next important predictors for mortality. Mortality was higher in the USA (25%) and Europe (20%) than in Asia (13%). Dyspnoea, fatigue/myalgia along with the respiratory rate were the best clinical predictors of mortality. Reduced lymphocyte count, reduced platelet count and increased D-dimer levels were all associated with increased mortality. Corona G, Pizzocaro A, Vena W, et al. Diabetes is most important cause for mortality in COVID-19 hospitalized patients: Systematic review and meta-analysis. <i>Rev Endocr Metab Disord</i> 2021;22:275–96. https://doi.org/10.1007/s11154-021-09630-8
Due <i>et al</i> , <i>Diabetologia</i>	Population-based cohort study	Maternal diabetes increased the risk of high refractive error in offspring After adjusting for multiple potential confounders, diabetes of any type before or during pregnancy was associated with 39% increase in the risk of high refractive error (HR 1.39, hypermetropia 1.37, myopia 1.34%, astigmatism 1.58%) in the offspring at 25 years of age. The risk was higher in mothers with diabetic complications. Du J, Li J, Liu X, et al. Association of maternal diabetes during pregnancy with high refractive error in offspring: a nationwide population-based cohort study. <i>Diabetologia</i> 2021;64:2466–77. https://doi.org/10.1007/s00125-021-05526-z

Authors, Journal	Type of study	Main results
Salem <i>et al</i> , <i>Diabetes Care</i>	Functional MRI study	Weight regain after very low calorie diet (VLCD) compared with enduring weight loss after Roux-en-Y gastric bypass surgery (RYGB) may be due to divergent brain activation patterns to food cues VLCD resulted in increased brain reward centre food cue responsiveness, higher neuronal activation of cognitive centres in response to food cues associated with increased cognitive restraint over eating and less engaged homeostatic appetitive system in hypothalamus compared to RYGB. This may explain why there is more weight gain relapse after VLCD compared with sustained weight loss after RYGB. Salem V, Demetriou L, Behary P, et al. Weight loss by low-calorie diet versus gastric bypass surgery in people with diabetes results in divergent brain activation patterns: a functional MRI study. <i>Diabetes Care</i> 2021;44:1842–51. https://doi.org/10.2337/dc20-2641
Øyen <i>et al</i> , <i>Diabetes Care</i>	Cohort study	Intake of lean fish but not fatty fish or long chain n-3 PUFA supplements can reduce the risk of medication treated type 2 diabetes in women after 90 days of delivery who are overweight or obese in pregnancy 1.1% of women developed diabetes and the risk was lower with lean fish intake only in women with BMI ≥25 kg/m2. There was no association with the intake of total fish, fatty fish, LCn-3 PUFA supplements and type 2 diabetes. Øyen J, Brantsæter AL, Nøstbakken OJ, et al. Intakes of fish and long-chain n-3 polyunsaturated fatty acid supplements during pregnancy and subsequent risk of type 2 diabetes in a large prospective cohort study of Norwegian women. <i>Diabetes Care</i> 2021 Aug 18;dc210447. https://doi.org/10.2337/dc21-0447
Fonseca <i>et al</i> , <i>Clin Diabetes</i>	Review	Combination injectable therapy with basal insulin and GLP-1 agonist for people with type 2 diabetes who have high HbA1c and/or long duration (>8 years) of diabetes About 15% people have high HbA1c >9%. With long duration, beta cell function declines considerably and a combination therapy may be more appropriate in this group of people. Fonseca VA, Sood M, Galindo RJ. Rationale for the use of combination injectable therapy in patients with type 2 diabetes who have high A1c (≥9%) and/or long duration (>8 years): Executive summary. <i>Clin Diabetes</i> 2021;39(2):141–5. https://doi.org/10.2337/cd20-0121
Do <i>et al</i> , <i>Diabetes Care</i>	Prospective observational cohort study	Prophylactic aspirin for all pregnant women with diabetes did not change the incidence of pre-eclampsia vs risk-based aspirin strategy In the all-women group vs selected women group, the incidence of pre-eclampsia was similar (12% vs 11%). Fewer women had type 2 diabetes and BMI was lower in all-cohort. Prevalence of preterm delivery, preterm pre-eclampsia, large for gestational age and small for gestational age was similar for both groups. Do NC, Vestgaard M, Ásbjörnsdóttir B, et al. Unchanged prevalence of preeclampsia after implementation of prophylactic aspirin for all pregnant women with preexisting diabetes: a prospective cohort study. <i>Diabetes Care</i> 2021 Aug 13;dc21-1182 https://doi.org/10.2337/dc21-1182
Lee <i>et al</i> , <i>Diabetes Care</i>	RCT	Fast-acting insulin aspart vs insulin aspart (IAsp) using a second generation hybrid closed-loop system in adults with type 1 diabetes Faster aspart achieved greater Time in Range (TIR) compared with IAsp (82.3% vs 79.6%). Four-hour postprandial glucose TIR was higher using faster aspart compared with IAsp for all meals combined. Lee MH, Paldus B, Vogrin S, et al. Fast-acting insulin aspart versus insulin aspart using a second-generation hybrid closed-loop system in adults with type 1 diabetes: a randomized, open-label, crossover trial. <i>Diabetes Care</i> 2021 Aug 6;dc210814. https://doi.org/10.2337/dc21-0814
Ryg <i>et al</i> , <i>Diabetes Care</i>	Randomised controlled study	Patient-initiated visits had better outcome than the scheduled visits In this study of 357 people with type 1 diabetes comparing the two approaches after 24 months, the intervention group of patient-initiated visits experienced more benefits from consultations compared with standard care (p<0.05) with fewer unnecessary visits (p<0.05). There was no significant change in HbA1c, LDL, blood pressure and complication status. The mean number of outpatient visits over 24 months was lower in the intervention group compared with the control group (4.4 vs 6.3, p<0.001), but the number of telephone contacts was higher (3.1 vs 2.5, p<0.001). Ryg ND, Gram J, Haghghi M, Juhl CB. Effects of patient-initiated visits on patient satisfaction and clinical outcomes in a type 1 diabetes outpatient clinic: a 2-year randomized controlled study. <i>Diabetes Care</i> 2021 Jul 22;dc203083. https://doi.org/10.2337/dc20-3083
Rosenstock <i>et al</i> , <i>Diabetes Care</i>	RCT	IGlarLixi (SoliMix) achieved lower HbA1c with less weight gain and lower incidence of hypoglycaemia compared to Basp30 in people not achieving good control with basal insulin only HbA1c reduction was greater (1.3 vs 1.1 meeting non-inferiority and reaching superiority, p<0.001), body weight change was lower (-1.9 kg) and percentage of participants achieving HbA1c <7 % without weight gain and hypoglycaemia were all in favour of IGlarLixi. Rosenstock J, Emral R, Sauque-Reyna L, et al. Advancing therapy in suboptimally controlled basal insulin-treated type 2 diabetes: clinical outcomes with iGlarLixi versus premix BAsp 30 in the SoliMix randomized controlled trial. <i>Diabetes Care</i> 2021 Jun 28;dc210393. https://doi.org/10.2337/dc21-0393

Authors, Journal	Type of study	Main results
Garcia-Tirado <i>et al</i> , <i>Diabetes Care</i>	RCT (crossover)	<p>Advanced closed-loop control system is better to control postprandial glucose than hybrid closed-loop following an unannounced meal</p> <p>TIR and time in tight range were significantly higher using RocketAP than using USS-Virginia in the 6 h period following an unannounced meal (83% vs 53%, p=0.004 and 49% vs 27%, p=0.002, respectively), primarily driven by reduced time-above-range (17% vs 47%) with no increase in time-below-range. RocketAP also improved control following the announced meal overall and overnight and delivered less insulin overall.</p> <p>Garcia-Tirado J, Diaz JL, Esquivel-Zuniga R, et al. Advanced closed-loop control system improves postprandial glycaemic control compared with a hybrid closed-loop system following unannounced meal. <i>Diabetes Care</i> 2021 Aug 15;dc210932. https://doi.org/10.2337/dc21-0932</p>
Cohen <i>et al</i> , <i>Diabetes Care</i>	Post hoc analysis of RCT	<p>Renoprotective effect of the combination of empagliflozin and liraglutide combination is less than the effect of metabolic surgery</p> <p>Both the interventions were effective in reducing urine ACR but RYGB was significantly superior (mean difference 14.99). The % of patients achieving remission of albuminuria/DKD was 59.3% in the combination therapy vs 81.8% in the RYGB group. RYGB was also superior for HbA1c reduction (mean difference 0.49) and LDL cholesterol but not systolic blood pressure.</p> <p>Cohen RV, Petry TB, Miras AD, et al. Renoprotective effects of the combination of empagliflozin and liraglutide compared with roux-en-y gastric bypass in early-stage diabetic kidney disease: a post hoc analysis of the Microvascular Outcomes after Metabolic Surgery (MOMS) randomized controlled clinical trial. <i>Diabetes Care</i> 2021 Aug 6;dc211192. https://doi.org/10.2337/dc21-1192</p>
Todd <i>et al</i> , <i>Diabetes Care</i>	Evaluation of whole-exome sequence data of youth with diagnosis of type 2 diabetes	<p>2.8% of youth diagnosed with type 2 diabetes were found to have MODY</p> <p>Out of 3,333 participants, 2.3% carries a likely pathogenic or pathogenic variant of one of the MODY genes (HNF4A, GCK, HNF1A, PDX1, INS and CEL). MODY youth had a younger age at diagnosis, lower fasting C-peptide levels, lower incidence of hypertension and higher HDL cholesterol.</p> <p>Todd JN, Kleinberger JW, Zhang H, et al. Monogenic diabetes in youth with presumed type 2 diabetes: results from the Progress in Diabetes Genetics in Youth (ProDiGY) Collaboration. <i>Diabetes Care</i> 2021 Aug 6;dc210491. https://doi.org/10.2337/dc21-0491</p>
Voss <i>et al</i> , <i>Diabetes Care</i>	Analysis of data from studies	<p>Time to peak glucose and C-peptide during OGTT may predict the development of type 1 diabetes in antibody positive relatives</p> <p>Higher 5-year diabetes progression risk was seen in those with time to peak glucose >30 min and time to peak C-peptide >60 min. The association was greater with time to peak C-peptide vs peak C-peptide level.</p> <p>Voss MG, Cuthbertson DD, Cleves MM, et al. Time to peak glucose and peak c-peptide during the progression to type 1 diabetes in the Diabetes Prevention Trial and TrialNet cohorts. <i>Diabetes Care</i> 2021;44:2329–36. https://doi.org/10.2337/dc21-0226</p>
Hansen <i>et al</i> , <i>Diabet Med</i>	Review	<p>Semaglutide in real world</p> <p>HbA1c reduced by 12.8 mmol/mol in GLP1 agonist naïve and 6.4 in GLP-1 experienced people with type 2 diabetes in real world data from a clinic. Body weight reduced by 5 kg and 3.2 kg in the respective populations. 75% received 1 mg QW semaglutide.</p> <p>Hansen KB, Svendstrup M, Lund A, Knop FK, Vilsbøll T, Vestergaard H. Once weekly subcutaneous semaglutide treatment for persons with type 2 diabetes: real world data from a diabetes out patient clinic. <i>Diabet Med</i> 2021;38(10):e14655. https://doi.org/10.1111/dme.14655</p>
Smith <i>et al</i> , <i>Diabet Med</i>	Systemic review/ meta-analysis	<p>Insulin dose for meals containing protein and fat</p> <p>In this review of 18 studies, additional insulin was given in 13 studies. Five studies gave an additional 30–43% on the insulin-to-carbohydrate ratio (ICR) for 32–50 g of fat and 31–51% ICR for 7–35 g of fat and 12–27 g of protein added to control meals. Overall, there was glycaemic benefit of an additional 24–75% ICR for fat and fat and protein meals. There was some supportive evidence for insulin delivery in a combination bolus with a minimum upfront dose of 60% ICR, 15 min before the meal.</p> <p>Smith TA, Marlow AA, King BR, Smart CE. Insulin strategies for dietary fat and protein in type 1 diabetes: a systematic review. <i>Diabet Med</i> 2021;38(11):e14641. https://doi.org/10.1111/dme.14641</p>
Foo <i>et al</i> , <i>Diabetes, Obes Metab</i>	Database study	<p>The impact of obesity on COVID-19 prevalence and mortality globally</p> <p>Higher obesity prevalence was associated with increased COVID-19 mortality and prevalence rate. For every 1% increase in obesity prevalence, the mortality rate increased by 8.3% and the case rate was higher by 6.6%. Higher median population age, greater female ratio, higher human development index, lower population density and lower hospital bed availability were all significantly associated with higher COVID-19 mortality rate. Stricter government actions, higher HDI and lower mean annual temperature were significantly associated with higher COVID-19 case rate.</p> <p>Foo O, Hiu S, Teare D, Syed AA, Razvi S. A global country level analysis of the relationship between obesity and COVID-19 cases and mortality. <i>Diabetes Obes Metab</i> 2021 Aug 16;10.1111/dom.14523. https://doi.org/10.1111/dom.14523</p>

Authors, Journal	Type of study	Main results
Thiele <i>et al</i> , <i>Diabetes, Obes Metab</i>	Randomised study	<p>Empagliflozin improves haematological variables</p> <p>In this study, haematocrit and haemoglobin increased after 3 months of treatment. After 3 months, red blood cell count and transferrin concentration increased. There was a trend towards increased erythropoietin levels while ferritin, total iron and transferrin saturation levels decreased after 3 months. Increase in urine glucose excretion was significantly correlated with the induction of erythropoietin. The mechanism may be reduced tubular glucose re- sorption resulting in diminished cellular stress leading to higher renal erythropoietin secretion.</p> <p>Thiele K, Rau M, Hartmann NU, et al. Effects of empagliflozin on erythropoiesis in patients with type 2 diabetes – data from a randomized, placebo controlled study. <i>Diabetes Obes Metab</i> 2021 Aug 11. https://doi.org/10.1111/dom.14517</p>
Eldor <i>et al</i> , <i>Diabetes, Obes Metab</i>	Safety and efficacy study	<p>Oral insulin (ORMD-0801)</p> <p>In this 28-day safety and efficacy study on 188 people with type 2 diabetes, mean night-time CGM increase was lower in the insulin group compared to placebo (1.7 vs 13.7 mg/dL). Glycaemic control variables (24-hour, fasting and day time CGM glucose) also displayed smaller increases with insulin compared with placebo. Change from base- line HbA1c was –0.01% in the insulin arm vs +0.20% in the placebo group (p=0.0149). There was no increase in hypoglycaemia or safety events.</p> <p>Eldor R, Neutel J, Homer K, Kidron M. Efficacy and safety of 28 day treatment with oral insulin (ORMD 0801) in patients with type 2 diabetes mellitus: a randomized placebo controlled trial. <i>Diabetes Obes Metab</i> 2021;23(11):2529–38. https://doi.org/10.1111/dom.14499</p>
Pratley <i>et al</i> , <i>Diabetes, Obes Metab</i>	Bucher indirect comparison	<p>Semaglutide 1.0 mg vs dulaglutide 3.0 and 4.5 mg</p> <p>Semaglutide 1.0 mg significantly reduced HbA1c versus dulaglutide 3.0 mg with an estimated treatment difference of 0.24% points and comparable reduction of HbA1c versus dulaglutide 4.5 mg. Semaglutide 1.0 mg significantly reduced body weight versus dulaglutide 3.0 and 4.5 mg with an ETD of –2.65 kg and –1.95 kg, respectively.</p> <p>Pratley RE, Catarig AM, Lingvay I, et al. An indirect treatment comparison of the efficacy of semaglutide 1.0 mg versus dulaglutide 3.0 mg and 4.5 mg. <i>Diabetes Obes Metab</i> 2021;23(11):2513–20. https://doi.org/10.1111/dom.14497</p>



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It has been a busy few months for the DTN.

Hybrid closed loop pilot project

NHS England announced a project to provide hybrid closed loop therapy to up to 1,000 people with type 1 diabetes through 25 adult and seven paediatric sites as part of a pilot. The ABCD and DTN were closely involved in developing online data collection tools through the ABCD audit system. DTN also hosted a series of webinars led by Dr Sufyan Hussein from GSTT and Geraldine Gallen from KCH to support teams on how to choose the best systems and how to on-board patients to this treatment. The DTN also hosts a weekly catch-up call with all the pilot centres and NHS England, which has been invaluable in ironing out some of the logistical

and implementation details that are inevitable with a project like this.

Academy

It has been great to see an ongoing high uptake to the Academy education programme. After a slight dip in August, we have seen a lot of activity on this platform through September. It is great to see all the work we put into this platform being used by clinicians and been heart-warming to receive the messages of support showing how useful this has been for teams across the country. We are working to make this a desirable addition for all trainees in Diabetes & Endocrinology and we should be sharing the data on uptake in different departments with the team at NHS England. It was great for Academy to be nominated as a finalist for the annual QIC awards.

Expert opinions on devices

In this virtual world, supporting people with diabetes on the choice of device has become even more difficult. They are not able to have a look at devices and handle them before choosing. To try and help teams support patients through this, we filmed a series of videos on expert opinions on devices with two experienced educators. Sara Hartnell from Cambridge and Geraldine Gallen from King's provide their opinions on the pros and cons of all the different devices available currently.

Annual DTN day

We ran our annual conference, twinned with the ABCD Conference, on Wednesday 13th October. We were hoping so much that we would be able to hold this meeting face-to-face but, sadly, the COVID-19 situation meant that we had to run it virtually again this year. The silver lining to running the meeting virtually was that we actually had a lot more attendance than we would have had face-to-face. We had over 350 people registered for the meeting and attendance levels were over 250 for most of the day. We had a fantastic programme with a number of great presentations covering closed loops, connected pens, the latest glucose monitoring data in Scotland and finishing up with valuable talks on type 1 diabetes and eating disorders, as well as how to manage hypoglycaemia that is resistant to treatment with technology. A focused meeting report will follow in the next issue.

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YDEF NEWS

EDUCATION • ADVOCACY • SUPPORT

YDEF continues to develop from the recent pandemic period in strong form, under the leadership of Giulia Argentesi. The committee held their first face-face meeting following the recent restrictions with exciting future plans ahead. New committee members have been interviewed (watch this space) and new positions created on the committee to better represent trainees including our first less than full time training rep, an international medical graduate representative and a deputy chair and a future IMT representative. This will allow YDEF to fully embrace the changes ahead for trainees and NHS in general.

We were delighted to lead a heavily oversubscribed diabetes technology course working directly with ABCD DTN – a unique residential course that allows people to wear diabetes devices to experience what the patients we care for live with on a daily basis. As ever, the feedback from the course was fantastic and we are truly grateful to the speakers who attended and gave their insights. Noting the very high demand for the course, we are signposting the other great diabetes technology courses available and look to run an additional course this year to meet demand.

We have launched our first ever Marjorie Award looking to recognise junior doctors and medical students who have worked to reduce healthcare inequalities in relation to diabetes diagnosis, monitoring and treatment.

Marjorie was a dog who was the first animal to ever be injected with insulin, a drug that has transformed and saved so many lives since its discovery 100 years ago. To mark the occasion of the first injection of insulin into a human on 11th January 1922, the Association of British Clinical Diabetologists (ABCD) are hosting a two-day event (11th and 12th January 2022) at the Royal College of Physicians, London, including a celebratory dinner on 11th January. In honour of the 100-year anniversary of insulin and Marjorie the dog, the YDEF Team has launched the Marjorie Prize, with five awardees fully funded to attend this event, awarded to those working to reduce diabetes-related healthcare inequalities.

We hope this year to run our YDEF day in-person, this year asynchronous with the Diabetes UK Professional Conference as a one-off. Watch this space for more information.

Virtual opportunities remain available. ABCD and Lilly have kindly supported the

Diabetes Masterclass series which has been incredible with fantastic attendance. The Obesity course held its first of three webinars in the last few weeks and was very well received and over-subscribed.

On behalf of the rest of the committee I would like to thank our outgoing chair Najaf Haider for all his efforts, guidance and leadership during what has been a very turbulent year for YDEF and the NHS as a whole. We look forward to delivering an exciting range of education and advocacy programmes in the face of new challenges, new curriculums and new national guidelines. We are particularly excited to be continually strengthening our relationship with partner organisations such as ABCD and the Society for Endocrinology, amongst others.

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YDEF is dedicated to all diabetes and endocrine trainees and is open for new members to register on our website. Take advantage of our regular newsletters and up-to-date advertising of a wide variety of courses and meetings to complement your training. As always, we are continuously looking to develop and propagate our specialty so do not hesitate to contact us if you have any suggestions or questions!

www.youngdiabetologists.org.uk @youngdiab on twitter