NEWS

Br J Diabetes 2016;**16**:212-216

From the desk of the Chairman (Rob Gregory)

Opportunity knocks

NHS England has published its planning guidance for 2017–2019. https://www.england.nhs.uk/wp-content/uploads/2016/09/NHS-operational-planning-guidance-201617-201819.pdf. Having made diabetes a national priority, and defined the categories for improvement – achieving the three treatment targets: access to structured education, foot care and inpatient care – the Diabetes Programme Board has announced targeted investment of £40 million recurrent (for at least two years). Bids will be invited for money to support transformation in the above categories that will bring a return on that investment by the end of the current 5 Year Forward View. Since addressing unacceptable variation is a priority, bids from CCGs that are underperforming in particular categories are likely to be prioritised. We are still waiting for instructions about how to apply, but I suggest that members make sure their CCGs are aware of the opportunity and start preparing business cases for additional investment in one or more of the four categories. The first round of CCGIAF (CCG improvement and assessment framework) results has been released and submission of data to the National Diabetes Audit (NDA) is disappointingly low in many CCGs. Although making NDA participation mandatory has been ruled out, I have suggested that the award of new money for diabetes transformation should be conditional on participation in the NDA.

Proposed national tariffs for patients with diabetes

ABCD responded to an early draft of the proposed national tariff, which will run in parallel with the planning guidance for two years. For the full response, please visit ABCD website.

Type 1 diabetes

Following a very productive meeting with Diabetes UK to discuss how to work together to achieve improvements in care and outcomes for people with type 1 diabetes, it was agreed to recommend the 2016 ABCD Position Statement, Standards of Care for Management of Adults with Type 1 Diabetes, along with the London Clinical Network's Service Specification for Type 1 Diabetes to NHS Right Care as the basis for an 'optimal pathway' that will be offered as guidance to health economies with suboptimal care processes and outcomes. The value of integrated national diabetes IT system (Sci Diabetes) cannot be overstated, but it seems unlikely that the other nations of the UK will be allowed to use it.

T1 resources

Sophie Harris, a clinical research fellow at King's College Hospital, has founded a website www.t1resources.uk in a welcome attempt to support better self-management by providing quality-assured material for patients and carers under one roof.

Volunteers required

Continuing the theme of accreditation of educational materials, NICE and the London AHSN are collaborating in a project to create standards for apps on the subject of diabetes prevention. Yinka Makinde is looking for volunteers from ABCD to review and score at least two apps. This is important as the approach may be rolled out to diabetes apps in due course. For more information and to sign up, go to https://www.ourmobilehealth.com/reviewers-invitation.html

What I've been up to

I have been invited to join the Endocrinology Clinical Reference Group as an affiliate member representing ABCD. This is an influential group chaired by John Wass that gives advice about centrally commissioned endocrinology services. Luckily for me, diabetes does not feature prominently.

I am a member of a Diabetes UK Council of Healthcare Professionals Working Group that is designing a Diabetes Framework from first principles. By the end of the year we should have a document that will help providers and commissioners to have meaningful conversations about aspects of the integrated diabetes service in their locality, hopefully without ripping everything up (good as well as bad) and importing a model from elsewhere.

BJD

Keep your submissions coming in, and don't forget to let Umesh Dashora have titbits of news for this popular section of the journal.

ABCD website(s)

The ABCD committee approved a piece of work to migrate the wealth of material from www.diabetologists-abcd.org.uk to https://abcd.care. Bob Ryder has agreed to undertake this sizeable task in conjunction with the Information and Communication sub-committee.

Social media

Andy Macklin would like to hear from members who would be interested in contributing to the ABCD Twitter feed, as he has virtually single-handedly been the Twitter presence of ABCD since we opened our account. Members who would like to get involved should first contact Andy.

IPN-UK

The day courses for November and December have been rearranged for 6th and 10th January to avoid a clash with the planned junior doctors' strikes that have since been suspended.

Endobarrier project (Bob Ryder)

ABCD-supported Endobarrier projects continue to produce interesting research results. The Endobarrier with Liraglutide group showed a mean drop in weight of 12.3 kg along with an HbA_{1c} improvement of nearly 23 mmol/mol (2.1%). This would equate to a reduction in 22 coronary events or stroke and 18 lives saved over 10 years for each patient treated this way using UKPDS risk engine estimates.

The first patient in the ABCD Endobarrier in obstructive sleep apnoea (End-OSA) study was started on her Endobarrier treatment recently. The BBC interviewed the patient and filmed the procedure for this news item. The aim is to see if the weight loss associated with Endobarrier treatment allows some patients no longer to require their CPAP overnight ventilation treatment which would be of great benefit to the patient and to the NHS. The patients also have diabetes or pre-diabetes, and those problems will also be helped. The study is funded by ABCD and is the second Endobarrier study that they are supporting, the first being REVISE-Diabesity (see https://youtu.be/y1zm0Scq6YM and https://youtu.be/xRcnM-BOdb58).

There is also a brief, more succinct, presentation of the data at the recent European Association for the Study of Diabetes (EASD) which is on the following link: http://m.easdvirtualmeeting.org/#ePostersVideo/29622/Player

From the desk of Rebecca Reeve

High prevalence of diabetes and cardiovascular disease in Scotland

In a recent report published by the Scottish government, the data show that 19% of adults had a cardiovascular condition or diabetes, 8% had coronary heart disease or stroke and 6% were diagnosed with diabetes in 2015. The report also shows that the prevalence rate of diabetes increased from 4% to 6% between 2003 and 2011.

Guidance from NHS RightCare team and Public Health England

There is new guidance on the prevention, detection and treatment for diabetes and cardiovascular disease (available here). The section on diabetes (accessible here) focuses on the National Diabetes Audit and using the data for quality improvement activities. There is also emphasis on integrated care, diabetes education, access to a trained diabetes nurse and medicine use reviews (MURs) by pharmacists.

CCGs need improvements in providing care for people with diabetes

The diabetes indicators for CCG improvement and assessment framework were published recently (see here). 71% of the CCGs have been rated as needing improvement. Many CCGs have a number of practices who have not participated in the National Diabetes Audit.

An update on Diabetes Quality Standards from NICE

NICE has published an update on diabetes quality standards. It emphasises adding second-line therapies quickly, life style programmes for people at high risk of diabetes, education programme, referral to a foot protection service for patients with a high risk of diabetic foot problems, immediate referral for specialist assessment for high-risk foot problems and access to a diabetes specialist team for inpatients with diabetes.

CQC report on the thematic review of diabetes care pathways in primary care

The report covers care of people with diabetes in the community (My diabetes, my care). It recommends better emotional support for people with diabetes, development of inclusive educational approaches, enhanced use of technology to support self-management and training of care workers in diabetes-related issues, among other recommendations.

Extra deaths due to media coverage of statins

According to a study published by the British Heart Foundation, adverse media coverage including that in scientific journals can lead to up to 2,000 extra deaths in the next decade in the UK.

Partha Kar reflects on his first three months in the post

In his blog, Dr Kar mentions his priority areas such as type 1 diabetes pathway, online diabetes education module, national type 1 diabetes platform, availability of Libre and inpatient diabetes.
http://nhssugardoc.blogspot.fr/2016/08/where-we-at.html

The latest State of the Nation report

The latest Diabetes UK (DUK) State of the Nation report published recently exposes some gaps in the quality of care for people with diabetes. Some of the deficiencies include: 31% and 67% of people with type 1 and type 2 diabetes, respectively, meeting their HbA_{1c} target of 7.5%, considerable variation in the quality of care indicators amongst the CCGs, poor recorded uptake of diabetes education (2–6%), 15% of type 1 and 6% of type 2 patients with diabetes having HbA_{1c} >10%.

From the desk of Caroline Day

Pilot T2DM App?

Only 6% of people with type 2 diabetes attend an education course. A new App, developed by a team at Newcastle University, is aiming to change this using systems proven to engender behavioural change. The App offers digital structured education using the X-PERT type 2 diabetes programme as well as interactive lifestyle tools such as activity, weight and eating habit trackers in association with supportive information. The App also offers access to personal coaching to help setting, achieving and maintaining goals. This App has been shown to maintain weight loss – a goal for many patients with long term conditions. For more information, or to try out the App go to www.changinghealth.com or phone 0191 208 8882.

The 2016 Rowan Hillson Insulin safety award

We are inviting colleagues to submit entries to this competition to find the best joint pharmacy and diabetes team initiative to improve insulin and prescribing safety in hospital. This JBDS – IP project is being led by our colleagues Umesh Dashora, Debbie Stanisstreet, and Erwin Castro.

THE CLOSING DATE IS 31.01.17.

Visit ABCD website or e mail u.dashora@nhs.net for more details

Interesting recent research

A rapid-fire collection of interesting recent developments in diabetes

Semaglutide improves cardiovascular outcomes in people with type 2 diabetes

In a recent study published in the *NEJM* the authors report favourable influence on cardiovascular outcomes with semaglutide compared with placebo in people with type 2 diabetes with established cardiovascular disease or chronic kidney disease, or both (hazard ratio 0.74, 95% CI 0.58 to 0.95; p<0.001). The benefit was mainly driven by a significant (39%) reduction in the rate of non-fatal stroke and a non-significant reduction in non-fatal myocardial infarction, with no difference in the rate of cardiovascular death. Rates of eye complications were significantly higher (p=0.02).

http://www.nejm.org/doi/full/10.1056/NEJMoa1607141#t=article

Alternatives to statins may be just as good

In a systematic review and meta-analysis published in *JAMA* the authors suggest that alternatives to statin therapy may yield similar cardiovascular benefits per mmol drop in low-density lipoprotein (LDL) levels. Both statins and non-statin therapies which act by upregulating LDL receptor expression (diet, bile acid sequestrants, ileal bypass and ezetimibe) reduced cardiovascular events by 23% for every 1 mmol reduction in LDL levels from a mean baseline LDL of 3.16 mmol/L.

http://jama.jamanetwork.com/article.aspx?articleid=2556125

Glucotoxicity and lipotoxicity in patients with type 2 diabetes may be mediated through TNFR5 gene

According to research published by Mark Turner and colleagues from the UK, the TNFR5 gene may be responsible for the glucotoxicity and lipotoxicity towards the pancreas in people who can then develop type 2 diabetes. This gene can potentially be blocked, paving the way for newer therapeutic agents.

http://www.nature.com/cddis/journal/v7/n8/full/cddis2016203a.html

Coffee consumption may reduce the risk of diabetes through interaction with the incretin system

In a study published in *Diabetologia* by the InterAct consortium, the authors show a relationship between TCF7/L2 variant and an incretin-specific genetic risk score with coffee consumption (p=0.048) which might underlie the protective effect of coffee on type 2 diabetes.

http://link.springer.com/article/10.1007/s00125-016-4090-5/fulltext.html

Benefits from statins outweigh harm

In a recent review published in *Lancet*, the authors from Oxford say that, on reviewing the published research, the benefits of stains far outweigh any harm. The review suggests that reduction in LDL by 2 mmol/L with 5-year treatment with statins would prevent 500 cardiovascular events such as ischaemic strokes and myocardial infarction in patients at increased risk and 1,000 events in patients with pre-existing disease. This is in contrast to five cases of myopathy, including one case of rhabdomyolysis, if statins are not stopped, 50–100 new cases of diabetes, 5–10 haemorrhagic strokes and up to 100 cases of muscle pain and weakness over a similar period.

Insulin but not glucose is causally linked to ischaemic heart disease

In a paper published in *Diabetologia* the authors report a genetic link between insulin and ischaemic heart disease. There was no link with glucose at the individual level. Insulin resistance might underlie and exacerbate this association.

http://link.springer.com/article/10.1007/s00125-016-4081-6

Multifactorial intervention in people with type 2 diabetes can gain 8 years of life

In a study published in *Diabetologia* the authors report on a 21-year follow-up of the steno 2 trial and suggest that a multifactorial approach targeting all the risk factors intensively in people with type 2 diabetes for eight years gains eight years of life for the patients after 21 years of follow-up.

http://link.springer.com/article/10.1007/s00125-016-4065-6

Insulin dose may need to be increased by 60% for the high fat high protein diet

In a study published in *Diabetes Care* the authors from Harvard show that patients receiving a high fat high protein diet may require a 60% increase in insulin doses to cover postprandial hyperglycaemia adequately.

http://care.diabetesjournals.org/content/39/9/1631

Knowledge gaps in type 2 diabetes in the young

In a paper published in *Diabetes Care* the authors highlight the gaps in the understanding and management of type 2 diabetes in young people. There is an urgent need to understand the biology, pathophysiology, environmental and psychosocial aspects of young people diagnosed with diabetes. More clinical trials are needed to find the most effective and realistic treatment and service interventions in this group.

http://care.diabetesjournals.org/content/39/9/1635

Insulin glargine with lixisenatide fixed combination achieves better HbA_{1c} than insulin glargine alone

In a study published in *Diabetes Care* the authors showed a greater reduction in HbA_{1c} with a combination of insulin glargine and lixisenatide than with either insulin glargine or lixisenatide alone (–1.6% vs –1.3% and –0.9%, respectively, p<0.001). More patients reached target HbA_{1c} and body weight decreased. Hypoglycaemia was more but nausea was less than with lixisenatide.

http://care.diabetesjournals.org/content/early/2016/08/18/dc16-0917

Impaired glucose tolerance is linked to type 2 diabetes and higher mortality rate

This study published in *Diabetes Care* shows that, over 23 years of follow-up, 80% of patients developed diabetes and 32% died, with the majority of deaths after developing type 2 diabetes. The development of type 2 diabetes was associated with a 73% higher risk of death (hazard ratio 1.73, 95% CI 1.18 to 2.52).

Tetrahydrocannabivarin (THCV) may be used to improve diabetes control

In this study from *Diabetes Care* the researchers reported the glucose-lowering effects of non-psychoactive phytocannabinoids. THCV significantly improved fasting plasma glucose (estimated treatment difference [ETD] = –1.2 mmol/L; p<0.05), pancreatic β-cell function (HOMA2 β-cell function ETD = –44.51 points; p<0.01), adiponectin (ETD = –5.9 × 106 pg/mL; p<0.01) and apolipoprotein A (ETD = –6.02 µmol/L; p<0.05), although plasma HDL was unaffected.

http://care.diabetesjournals.org/content/early/2016/08/26/dc16-0650

From prevention to treatment: everything that is recent

In a recent supplement of *Diabetes Care*, experts reviewed everything relevant to clinicians from prevention to treatment and outcome trials in diabetes.

Early or late intervention for prevention: The evidence appears to be in favour of applying interventions as early as possible, the best relative risk reduction being in older participants and in those with the highest estimated risk of developing type 2 diabetes.

Slowing the progression of type 2 diabetes: Food labelling, tax incentives on healthy food and life style choices, liability for adverse health events from food products, marketing restrictions on unhealthy choices, health tokens for making healthy choices, walking 10,000 steps daily, reducing body weight and considering metformin can all help.

Personalised treatment based on phenotype and genotype: Currently, up to 13 classes of drugs are available to treat type 2 diabetes. A new strategic model of interaction between the specialists and

other healthcare providers is needed to select the best treatment choice for individual patients.

Initial combination treatment for type 2 diabetes: Patients who are poorly controlled may need initial treatment with a combination of drugs rather than sequential addition of drugs. Trials are ongoing for the beneficial effect on beta-cell preservation by using this approach.

Which glucose lowering agent?: For patients with HbA_{1c} >7.5% at diagnosis, initial combination therapy is preferable. For those with HbA_{1c} >9% or symptomatic hyperglycaemia, initial insulin therapy (possibly short-term) is suggested. For patients with BMI <30 kg/m^2, DPP-4 inhibitors or SGLT2 inhibitors, for those with BMI >30 kg/m^2, GLP-1 receptor agonists or SGLT2 inhibitors are recommended and, for those with BMI >35 kg/m^2, GLP-1 receptor agonists are recommended.

GLP-1receptor agonists and SGLT2 inhibitors: These drugs are likely to be used earlier in the treatment of diabetes because of the attributes of some of them including HbA_{1c} reduction, weight loss, BP reduction, safety profile, improved cardiovascular outcome.

SGLT2 inhibitors and the diabetic kidneys: SGLT2 inhibitors have the potential to protect kidneys by their effect on glucose, BP and direct renal action. SGLT2 inhibitors reduce sodium resorption in the proximal tubule, leading to reduced glomerular hyperfiltration through tubuloglomerular feedback which may be help diabetic kidneys.

Newer long-acting insulins: Insulin glargine U300 and insulin degludec have protracted flat action over 24 hours and help reduce nocturnal hypoglycaemia compared with NPH insulin. U300 is not more expensive than insulin glargine. Cost will be a limiting factor for insulin degludec.

What to do when multiple daily insulin regimen fails in type 2 diabetes: The opT2mise clinical trial showed that, when patients are not well controlled on multiple daily injections (MDI), continuous subcutaneous insulin infusion (CSII) is a more effective option than further intensification of MDI. Addition of GLP-1 RA is another option if the patient has not previously failed it.

Glycaemic control improves cardiovascular outcome?: Not all studies show improved cardiovascular outcome and reduced mortality with intensive glycaemic control. Individualisation of target glucose may therefore be important and should be based on duration of diabetes, pre-existing cardiovascular disease, hypoglycaemia risk, comorbidities, response to therapy, frailty and other factors. Cardiovascular outcome trials with other SGLT2 inhibitors will help to understand this aspect more fully.

DPP-4 inhibitors and cardiovascular outcomes: Cardiovascular outcome trial results with DPP-4 inhibitors have been disappointing. Heart failure was increased with saxagliptin in SAVOR-TIMI53.

Does hypoglycaemia cause cardiovascular events?: Definitive evidence is still lacking. Hypoglycaemia can precipitate cardiac arrhythmia and reduce myocardial perfusion. These events can be dangerous in patients with cardiovascular risk and should be avoided at all costs while choosing individualised therapy.

Can DPP-4 inhibitors increase the risk of heart failure?: The current evidence suggests a small increase in the risk of admission for heart failure in patients with existing cardiovascular disease or risk factors. Additional RCTs in this group of patients will be needed.

What should be the BP target in patients with type 2 diabetes with nephropathy?: Patients with macroalbuminuria should keep their BP <130/80 mmHg provided there is no overt or subclinical ischaemia heart disease which may increase the risk of coronary hypoperfusion. Patients with microalbuminuria can set their target to <140/80 mmHg. ACE inhibitors or A2 blockers should be the preferred agent.

Blood pressure targets for elderly patients: The available evidence suggests that a BP target of <140–150/90 mmHg is more appropriate in elderly but healthy patients. A higher target may be agreed if there are health issues such as postural hypotension, cognitive impairment and falls.

Can statins cause cognitive impairment?: The evidence does not support the recent concern of reported cases of cognitive impairment with statins. Lifestyle interventions remain the cornerstone of treatment of obesity. Additional interesting drugs are getting approval for weight loss but the long-term data on efficacy and safety are limited.

http://care.diabetesjournals.org/content/39/Supplement_2

Diabetic ketoacidosis treatment in young adults and paediatric patients

In a survey published in Diabetic Medicine the authors report that 99% of paediatric patients and 89% of adult patients received fixed-rate insulin infusion. 23% of young adults and 9% of paediatric patients developed hypokalaemia with K <3.5 mmol/L. Hypoglycaemia occurred in 42% of paediatric patients and 36% of adult patients.

http://onlinelibrary.wiley.com/doi/10.1111/dme.13065/abstract

TZD and DPP-4 inhibitors associated with lower cardiovascular risk compared to basal insulin addition to metformin treatment

In this observation study published in the Journal of Diabetes, Obesity and Metabolism, addition of DPP-4 inhibitors and TZD to metformin was associated with lower mortality and cardiovascular risk (24% lower risk) compared with the addition of basal insulin (18% higher risk) in over 20000 patients.

http://onlinelibrary.wiley.com/doi/10.1111/dom.12704/abstract

GCK-MODY may be unnecessarily treated

A recently published study in Acta Diabetologica found a deleterious GCK mutation in 54.7% of registry probands selected for GCK sequencing for the study. 49% were previously unnecessarily treated with glucose-lowering agents, causing hypoglycaemia and other adverse effects in some of the subjects. The prevalence of this mutation appears to be relatively more common in Caucasians.

http://link.springer.com/article/10.1007/s00592-016-0859-8

DPP-4 inhibitors may improve bone health by increasing vitamin D levels

In a study published in Acta Diabetologica, patients treated with DPP-4 inhibitors were found to have significantly higher levels of 25(OH)D than those taking other therapies. This might underlie some of the positive effect on bone metabolism reported from DPP-4 inhibitors in experimental studies.

http://link.springer.com/article/10.1007/s00592-016-0882-9

News editor: Dr Umesh Dashora
E-mail: news@bjd-abcd.com

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YDEF NEWS

YOUNG DIABETOLOGISTS & ENDOCRINOLOGISTS
EDUCATION • REPRESENTATION • COMMUNICATION

Against the backdrop of changing times and environment, both politically and in the medical world, we at YDEF had our annual committee meeting and reviewed our aims, objectives and overall plans for the coming year. We have looked at our overall mission statement and decided on a change and will be bringing you more details of this at YDEF day. Needless to say, we remain focused on education and supporting our members in their training and development.

Adolescent and young adult curriculum

One of the areas in which we have been able to expand on our commitments is through our involvement in ongoing discussions with the state of young adult and adolescent training in our specialty. Some of you may have noticed our questionnaire on the website and in the newsletter. We were able to take your responses to our meetings regarding your thoughts on the barriers to achieving optimal training in adolescent and young adult care and areas to be targeted. With further discussions ongoing, we continue to be involved in the shape of training and will bring you updates as discussions occur.

T1 resources (www.T1resources.uk)

Our own Sophie Harris is instrumental in developing this new resource for people with diabetes.

T1 resources is a novel idea bringing together online resources that have been reviewed by both a healthcare professional and a person with diabetes to vouch for safety and usability. This is another great resource – not just for people with diabetes but also healthcare providers – to signpost people to, and also to understand, the daily concerns and issues that their patients may deal with and help them improve their patient management and understanding.

YDEF future plans

We are currently working on two national surveys looking at current trainees and recruitment to our specialty. Our YDEF perceptions of the specialty survey and burnout survey are ongoing and we are due to reveal the results in the near future. Our aim is to improve current training as well as to improve uptake to our specialty.

We are also in the process of working together with the SfE Early Career Steering Group to bring to you some exciting plans for the future.

Stay tuned to our updates for details.

UPCOMING COURSES

YDEF Retinopathy, 8th-9th December 2016
Our popular retinopathy course returns and is led by Professor Paul Dodson, who was a key figure in setting up retinal screening services across the UK. It is aimed at educating trainees on how to grade retinal screening photographs, with break-out sessions throughout the course to support lectures on this important complication of diabetes.

YDEF Wales, 9th-10th December 2016
This off-shoot of YDEF day returns for its sixth outing for our Welsh colleagues, as well as being open to trainees all over the country, and retains its high educational content in the field of clinical diabetes and research. The event features a set of workshops on soft skills with a great opportunity for collaboration and networking and remains a highlight in the YDEF calendar.

NEYD, May 2017
Keeping ties with our European colleagues, we are signposting our NEYD course early. This brings together trainees from Denmark, the Netherlands and the UK in a relaxed setting to discuss their research and create links in order to further develop diabetes care. This year it will be the UK's turn to play host and we look forward to opening registrations in the near future.

Dr Amar Puttanna
E-mail: amarputtanna@doctors.org.uk

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, jobs 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 or tweet us @youngdiab