DIABETES
All Party Parliamentary Group

Minutes

Young People and Type 2 Diabetes

Wednesday, 14th December 2022

16:00-17:00

In attendance:

- Virendra Sharma MP
- Derek Thomas MP
- George Howarth MP
- Lee Anderson MP
- Lord Brooke of Alverthorpe

Apologies:

- Lord Rennard
- Fabian Hamilton MP

Agenda

Item no 1: Chair's opening remarks - Virendra Sharma MP.

Historically we have thought of type 2 diabetes as a condition that affects older people, but the rate of type 2 diabetes in under 40s is now increasing faster than in over 40s. Type 2 diabetes in under 40s has risen by 23% in last 5 years. In 2016/17, 120,000 people under 40 had type 2 diabetes but this had risen to 148,000 in 2021.

Developing type 2 diabetes at a younger age leads to more complications including kidney and heart disease.

Incidence of type 2 diabetes is associated with socio economic inequalities. Prevalence in the most deprived area is 35% as opposed to 8% in the least deprived area.

Junk food marketing legislation is set to be delayed but, given the increasing prevalence of Type 2 diabetes in young people, we think any delay should be as short as possible.

Item no 2: Pre-recorded video – Shannon.

Topic: Shannon is from Manchester and shares her experience of living with Type 2 diabetes, after being diagnosed at the age of 16/17.

Shannon speaks about the symptoms that led her to go to her GP, including tiredness and thirst. She also speaks about the importance of diabetes technology to help her manage her diabetes and the need for mental health support.

Item no 3: Dr Shivani Misra, consultant in diabetes and metabolic medicine at Imperial College London, specialising in genetic diabetes and early onset type-2 diabetes.

Topic: Young-Onset Type 2 Diabetes: insights from the 1st national diabetes audit

When young people present with type 2 diabetes there are many features that are distinct from older adults and it can be frightening for young people to only see older people with type 2 when they go to appointments.

The rise in children is deeply concerning but this also extends to young adults.

In the past, diabetes presenting in young people, was assumed to be type 1 but now we're seeing more type 2 diabetes, accompanying the rise in rates of obesity.

Why is this group of interest?

Adults with early onset type 2 diabetes (age 18-39) are at very high risk. Early-onset diabetes progresses faster. Being diagnosed earlier is linked to a lower expected median survival age.

Early-onset type 2 diabetes is an extremely high-risk presentation associated with adverse outcomes including a higher frequency and faster progression to complications and earlier death, compared to presentation later in life.

There are a large number of people living with type 2 diabetes aged under 40 in England, and a significant proportion of them are under 15 (1.3%)

2019-20: cross-sectional prevalence

Type 2 diabetes		
Age group (years)	**Number of people**	**%**
<12	105	<0.1
12-15	545	0.4
16-18	910	0.7
19-25	8,245	6.7
26-39	112,980	92
Total	122,780	100

Most services for young people are directed towards type 1 diabetes.

Who is affected?

Key findings:

- These individuals are more likely to be in overweight or obese weight categories
- They are more likely to be from ethnic minority groups
- They are from more socioeconomically deprived areas
- They are less likely to receive care processes and achieve treatment targets

Summary: the most vulnerable group living with the highest risk subtype of type 2 diabetes

Guidelines & models of care for type 2 diabetes

Guidelines and models of care for type 2 are the same for all ages but in the analysis of the national diabetes audit, individuals under 40 years were less likely to receive all 9 care processes and achieve H1bAc targets. There is an evidence gap in how we should manage early onset type 2 diabetes.

Why should guidelines be different? Young adults have variable needs:

- People in education and of working age – need to think about the accessibility of medical appointments
- Different licenced medications for children and adults
- Many are not treated under specialist services – we need to think about things like specialist psychological support
- Addressing extremely high cardiovascular risk
- Women of childbearing age – people who have had gestational diabetes are more at risk

Priorities

- Raise awareness
- Make sure we are doing our best with current evidence, resource and infrastructure – we must make sure we are meeting existing guidelines and care targets
- Local strategies to support those living with type 1 diabetes and those at high risk for developing
- High quality funded research

Research priorities

- Prevention strategies in the young
- Which medications are best
- Should we be more aggressive in our treatment targets given higher cardiovascular risk?
- Qualitative studies – why are people not getting the care they need?
    - Engagement
    - Implementation
    - Representation

We have work to do but there are reasons for optimism. We are one of the only countries in the world with this level of granular data, and we already have a prevention programme and strategy.

Item no 4: Dr Dita Aswani, Consultant Paediatrician specialising in Diabetes and Weight Management, Sheffield Children's NHS Foundation Trust, North East and Yorkshire CYA regional diabetes lead, NHSE and Diabetes UK Clinical Champion.

Topic: APPG Call to Action

We all share a concern about the rise in type 2 diabetes in young people and children and we're committed to early detection. We need better care, outcomes and prevention.

NPDA key findings show that type 2 diabetes is exceptionally aggressive in children as young as 6 or 7 years old, and many are living with other diseases and complications as well.

Link between living with overweight and obesity and type 2 diabetes

In 2020 there were over 800 cases of type 2 diabetes in children and young people, in 2021 there were nearly 1000 cases - a 12.8% rise. There was a 20% increase in childhood obesity rates in same year. A third of children in the UK will be living with overweight or obesity by the time they go to secondary school, and they are at high risk of type 2 diabetes.

Girls UK BMI, 1-20 years

- The healthy BMI range for children is fluctuant – there are age mapped targets
- Only those who are classed as severely obese and medically obese are entitled to specialist services – this threshold is far too high, we need to be working on prevention sooner.

New data from the weight management clinic also shows a shockingly high prevalence of insulin resistance. 70% of people coming to the clinic have Acanthosis Nigricans – a skin marker of insulin resistance. None knew the significance of this marker, many saw it as a normal familial appearance

A waist measurement of more than half your height is an indicator of poor metabolic health. People can check this at home with a piece of string. Every single person in the clinic reached this threshold and more than 42% had a waist marker of more than 70% of their height.

Insulin resistance is caused by an ultra-processed diet and access to cheap carb dense foods. In clinic, there was a Raised Fasting Insulin Level in 61%, and a raised HOMA-IR score in 73%. Screening should start from the age of 2 to improve early detection.

A fifth of people at the clinic have evidence of fatty liver disease without any symptoms.

Another quarter have mild abnormalities.

Well intended government initiatives to provide free school breakfast can add to the problem. For example, if the free school breakfast is a bagel and jam and the child has already had cereal at home, this is a double carb load. Children in poverty are rarely starving but they are starved of healthy and fresh food, which is unaffordable. We need to collaborate to resolve this.

The media, including 'innocent', fun games focused on unhealthy food and drink (linked to advertising), is far more manipulative to young minds than we realise.

Wider determinants of health

70% of complications from excess weight (CEW) clinic patients live in the lowest two IMD decile postcodes and there is increased prevalence for non-white populations. This confirms what we know about wider determinants of health.

Mindset shift and Radical Intervention

We need a mindset shift and radical intervention to address food insecurities.

3 quick wins

- Screening - we need targeted screening of asymptomatic insulin resistance in high risk groups, using an algorithm created using CEW data (we already have this for adults).
    - Based on feedback from young people living with diabetes, a new web platform and app is in testing, with easy to understand information and a significant focus on mental health. It is culturally sensitive and will be translated into other languages. More investment would enable it to be extended to weight management services in primary and secondary care.
- Awareness - we need to raise awareness of symptoms for type 2 diabetes, with a campaign equivalent to the 4Ts for type 1 diabetes.
- Collaboration – we need to work together through
    - A cross party and policy child poverty group
    - Accountable officers
    - Linking advertisers, app creators, food producers, game producers, education, housing, health etc. These groups need to have open conversations about economic issues, to lead to a better way of addressing the whole picture.

The word 'preventable' gives an excuse to step back and stigmatise type 2 diabetes. However, this should be a collective child protection issue. I would love to have a conversation about how we can move forward together and be proactive.

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Item no 5: Q&A

How are young people and children diagnosed with diabetes? What routes do they come through? Are we finding everyone affected?

Dr Shivani Misra – Generally a young person developing symptoms of diabetes may go to the GP get a blood test. Type 1 diabetes may be a more severe presentation and can result in hospitalisation. Type 2 diabetes tends has symptoms like tiredness, weight loss and passing more urine.

Dr Dita Aswani – Young people with type 2 diabetes usually present to GPs with those symptoms. Weight management services are also picking up incidental diagnoses. We don't know when they would have presented to GP with symptoms and the impact that delay could have on complications.

Where does the definition of a young adult being someone under the age of 40 come from?

Dr Shivani Misra – This comes from trying to define where the high risk starts. Epidemiological studies show a continuum of risk, every year diagnosed earlier, the risk of complication increases. This cut-off targets where the number of individuals that can benefit, is significant. Diagnostic difficulty also comes about under 30 (maybe 40) – as these are more likely to be cases of type 1 diabetes – so we need to spend time making the right diagnosis.

To what degree can we tailor DM services by age or other relevant characteristics? What could be learned from other services?

Dr Dita Aswani – We need a type 2 working group to recognise these cases. We need to collaborate and work together, and we need adequate peer support. This may not happen in localities because of the numbers so we need this collaboration to happen another way.

Dr Shivani Misra – Hospital specialists can't look after everyone, so this is something we need to deliver collaboratively. For example, North West London are conducting a virtual case review, looking at cases in under 40s and we are providing collaborative support to meet targets. Age specific services are a big ask considering the increasing number but need to make sure anyone looking after people with type 2 diabetes is focused on under 40s and thinking about what we can do differently from those with later onset.

Izzy Roberts – So, it's about getting guidance in place and sharing this widely.

Are there any differences in terms of prevalence in young men and women?

Dr Shivani Misra - In the way we diagnose – no. However, up to the age of 25, it is more common in women, then this balances out and later on, it becomes more prevalent in men.

We don't know if young women are more likely to get it or are more likely to present though. There could be a lot of undiagnosed people.

Dr Dita Aswani – The same pattern exists in younger children.

Item no 6: Chairs closing remarks - Virendra Sharma MP.