Public Health England

Protecting and improving the nation's health

Health inequalities: Type 1 diabetes

Introduction

Type 1 diabetes is an autoimmune condition where the pancreas stops producing insulin[1]. The body attacks the healthy pancreas cells by mistake which causes it to stop producing insulin which the body needs to regulate blood sugar. Type 1 diabetes often runs in families and you are more likely to develop the condition if a close relative has the disease. Unlike type 2 diabetes, there is no link between being obese and/or inactivity and developing the condition.

Prevalence

The General Practice Extraction Survey or (GPES) is data extracted from GP records for a range of purposes, including research.[2] GPES data for 2017/18 suggest that 0.4% of the general population and 0.8% of people with learning disabilities in England have a diagnosis of type 1 diabetes. There are differences in age distribution, with older people with learning disabilities over 75 having almost the same rate of type 1 diabetes (0.3% vs 0.2%). However for people ages 25-34 there are double the rate of people with learning disabilities diagnosed with diabetes compared to people from the general population (0.9% vs 0.4%).

There is research that suggests that for people with Down syndrome or other rare genetic syndromes are more likely to develop type 1 diabetes than other people with learning disabilities or the general population, although these studies were based on low numbers of participants[3] [4]. There is very limited UK research into type 1 diabetes and people with learning disabilities. Several studies, including systematic reviews, do not differentiate between people with type 1 and type 2 diabetes, making it difficult to ascertain how many people with learning disabilities have type 1 diabetes or why they may be at higher risk[5]. A recent audit[6] reported there were 1,970 people with learning disabilities and Type 1 diabetes registered with GPs in England and Wales in 2016/17.

Impact on people with learning disabilities

GPES data suggest that a greater proportion of people with learning disabilities have type 1 diabetes than the general population. Successful diabetes management involves understanding the condition, being able to conduct blood tests, and inject

insulin, therefore people with learning disabilities may find it difficult to manage their condition without assistance[7]. A recent national audit for England and Wales[6] reported that people with learning disabilities and Type 1 diabetes, compared to people with Type 1 diabetes and no learning disability, were slightly more likely to receive NICE-recommended diabetes care processes (typically relating to regular monitoring and surveillance), annual diabetes checks and structured education, but were slightly less likely to meet treatment targets for HbA1c, blood pressure and cholesterol.

Risk factors

There is no way to mitigate against the risk of developing type 1 diabetes. Those with genetic syndromes of with close family members with type 1 diabetes are more at risk. A study that investigated diabetes management amongst people with learning disabilities and both type 1 and type 2 diabetes, found that those with type 1 diabetes, younger participants, those living independently or at the family home, and who were obese, were more likely to have poor glycaemic control[7].

Healthcare and treatment

Treatment for type 1 diabetes is through management of blood sugars and injecting insulin. People with learning disabilities are likely to need support to manage their diabetes as successful management involves sticking to a diabetes friendly eating plan and understanding how to undertake blood sugar tests and injecting insulin[8].

Social determinants

The current research does not indicate that there are any social determinants that impact on type 1 diabetes.

Resources

NHS RightCare (2017) NHS RightCare Pathway: Diabetes. Reasonable adjustments for people with a learning disability who have diabetes

The Healthcare Quality Improvement Partnership (HQIP), NHS Digital & Diabetes UK (2018) National Diabetes Audit, 2016-17. Report 1: Care Processes and Treatment Targets England and Wales Learning Disability – Supplementary Information

References

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