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Type 1 diabetes report

Introduction: Type 1 diabetes mellitus (T1DM) is a chronic disease characterized by insulin deficiency due to pancreatic β -cell loss and leads to hyperglycaemia. Mostly diagnosed in children, teenagers and young adults, the disease cause is not understood and can affect anyone at any age.

Signs and symptoms differ from one person to another, adults with type 1 diabetes may not recognise symptoms as quickly as children, which could mean a delay in getting diagnosed and the right treatment. Furthermore, children's symptoms can suddenly develop over just a few days or weeks. The most common indicators and symptoms are, frequent urination, bedwetting for a child who use to be dry at night, feeling very thirsty and drinking much more than usual, fatigue, inexplicable weight loss even eating well. Urgent medical attention is needed if Ketoacidosis is suspected. Type 1 diabetes is considered as a global burden of disease, because it affects millions of people worldwide. Statistically, Wang, F. (2025). Mention '**Globally** in 2025 prevalence of people living with the disease were of 9.5 million, with incidence estimated of 513,000 cases. Prevalence cases increased by 20% from 1.8 million in 2021 to 2.1 million in 2025, in lower-income countries '. Looking ahead, the global type 1 diabetes population is estimated to reach 14.7 million by 2040. According to Diabetes UK (2026). 'Approximately 8% of people with a diabetes diagnosis have type 1 diabetes and almost 6 million people in the **United Kingdom** are living with diabetes. The United Kingdom is part of the 10 countries with the highest estimated number of people living type 1 diabetes. Additionally, around 8% of people with a diabetes diagnosis have type 1 diabetes'.

Classified as this is long-life condition, and Insulin replacement is vital to management. Surveillance is fundamental to identifying disease risks and implementing prevention **measures**. According to Diabetes research/Immunotherapies (2026). 'In June 2026, Teplizumab the first immunotherapy treatment to slow and prevent type 1 diabetes has been approved on the NHS'. Based on studies Immunotherapies assist individuals with or at risk of type 1 diabetes at three stages. First stage, Immunotherapy is given to prevent the immune system attack, a person will never develop type 1 diabetes or at least delay it until older. Second stage, for those newly diagnosed and immune hasn't fully attacked, like 30% of them still alive Immunotherapy is given to stop immune attacks and preserve the surviving beta cells. Third stage, Immunotherapy can be transplanting to those living with the disease for decades. Patients with T1DM are at high risk for other autoimmune disease, and psychosocial issues, such as e.g., emotional, relationships, low self-esteem, stress and anxiety. Management should focus on optimizing glucose control to reduce acute and long-term complications. Centre for Disease Control and Prevention (2024) in the US mentioned 'Type 1 diabetes is frequently identified in emergency situations when the individual experiences diabetic ketoacidosis (DKA)'. DKA **symptoms** include nausea and vomiting, abdominal pain, deep or rapid breathing, fruity-smelling breath, severe drowsiness, blurred vision. The highest **incidence** of type 1 diabetes is reported in countries such as Finland, Sweden, Norway and Canada. Diabetes estimated cost £10.7 billion a year, 60% is spend on diabetes complications declare the NHS.

In 2035 diabetes estimated cost will increase to £18 billion if prevalence continues to rise. Although the aetiology of type 1 diabetes is not completely understood. Considerable research efforts are needed to achieve early diagnosis, prevent β -cell loss and develop better treatment options to improve the quality of life of those affected. Statistics prove that people with a family member who has type 1 diabetes are 15 times more likely to develop the disease, for prevention screening can begin at 2 years old. Being aware that a weak immune system makes people develop disease, anybody can develop type 1 diabetes. The condition is known as non-modifiable lifelong condition with or without genetic risk factor, Insulin replacement is vital to management.

References:

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