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Type 1 Diabetes: Monitoring, Management, and Health and Social Care Support in the Community

Introduction

Type 1 diabetes is a lifelong autoimmune condition in which the body's immune system attacks and destroys the insulin-producing cells in the pancreas. Consequently, the body produces little or no insulin, which is needed to regulate blood glucose and allow glucose to be used for energy. Common symptoms include frequent urination, tiredness, excessive thirst, blurred vision and unexplained weight loss. Type 1 diabetes can develop at any age, although it often develops in children and young adults. Globally, approximately 9.2 million people of all ages are living with Type 1 diabetes (International Diabetes Federation, 2025). In the UK, almost 6 million people are estimated to be living with all forms of diabetes, including diagnosed and estimated underdiagnosed cases, and around 8% of people with a diabetes diagnosis have Type 1 diabetes (Diabetes UK, 2026). These figures demonstrate the importance of effective monitoring, treatment and health and social care support.

Measuring and Monitoring Type 1 Diabetes

Effective monitoring of type 1 diabetes is essential because blood glucose can become too high or too low. One approach is capillary blood glucose monitoring, commonly known as finger-prick testing. A small drop of blood is placed on a test strip and measured using a blood glucose meter. This allows individuals to check their glucose and understand how insulin, food, physical activity and other factors affect their blood glucose. NICE recommends that adults using capillary monitoring routinely test at least four times daily, including before meals and before going to bed (NICE, 2022).

Another important method is continuous glucose monitoring (CGM). A small sensor measures glucose levels regularly throughout the day and night. CGM allows the individuals to observe whether their glucose is increasing or decreasing and can provide warnings about high or low levels. NICE recommends offering adults with Type 1 diabetes a choice between real-time CGM and intermittently scanned CGM according to individual needs and preferences (NICE, 2022).

Healthcare professionals also use the HbA1c blood test to assess longer-term glucose management. HbA1c reflects average blood glucose over approximately the previous two to three months. NICE recommends measuring HbA1c every three to six months in adults with Type 1 diabetes and agreeing an individualised target with the person (NICE, 2022).

Regular health assessments are also important for detecting complications. These can include checking blood pressure, cholesterol, feet and eyes, kidney function. Combining daily glucose monitoring with HbA1c testing and regular health assessments allows healthcare professionals and individuals to evaluate treatment and make appropriate changes when necessary.

Control and management of Type 1 Diabetes

Type 1 Diabetes currently requires lifelong management. The main treatment is insulin therapy because the pancreas produces little or no insulin. Insulin can be administered through injection or for suitable individuals, an insulin pump. NICE recommends a multiple daily injection basal-bolus insulin regimen as the injection regimen of choice for adults with Type 1 diabetes (NICE,2022).

Regular glucose monitoring is essential alongside insulin treatment. Individuals can use Continuous Glucose Monitoring or finger-prick testing to understand their glucose levels and adjust their management appropriately. Monitoring can help identify hypoglycaemia, when blood glucose becomes too low, and hyperglycaemia, when it becomes too high. Severe insulin deficiency can result in diabetic ketoacidosis (DKA), a serious condition requiring urgent medical treatment.

Healthy eating is another important aspect of diabetes management. People with Type 1 diabetes should receive appropriate dietary advice and education. Carbohydrate counting can help people understand the relationship between carbohydrate and physical activity can also support general health, although insulin and food intake may need adjustment because exercise can influence glucose levels.

Education is particularly important because much of Type 1 diabetes care involves self-management. Individuals need to understand insulin administration, glucose monitoring, diet, physical activity and what to do during illness. Structured diabetes education can develop knowledge and confidence and help people manage their condition in everyday life (NICE, 2022).

Therefore, effective control of Type 1 diabetes requires insulin therapy, glucose monitoring, appropriate nutrition, physical activity, education and ongoing support from healthcare professionals.

Consequences of Type 1 Diabetes on People in the Community

Type 1 Diabetes can have significant physical, psychological and social consequences for people living in the community. Physically, individuals must manage their condition everyday by administering insulin, monitoring glucose and making decisions about food and activity. This continuous responsibility can affect daily routines and quality of life.

Poor glucose management can result in short-term problems such as hypoglycaemia and hyperglycaemia. Diabetic ketoacidosis is a particularly serious complication associated with insufficient insulin and can require emergency hospital treatment. Over the longer term, persistently high blood glucose can increase the risk of complications affecting the eyes, kidneys, nerves, feet, heart and blood vessels.

Type 1 Diabetes may also affect emotional and psychological wellbeing. Constantly thinking about glucose levels, insulin doses, meals and possible complications may cause stress or diabetes-related distress. Some people may worry about experiencing hypoglycaemia while sleeping, exercising, working or participating in social activities. Psychological support can therefore be an important component of diabetes care.

There may also be consequences for education, employment and social participation. Children and young people may need additional support at school to monitor their glucose, eat when necessary, administer insulin or attend healthcare appointments

Family members may also be involved in providing practical and emotional support. In some cases, complications can affect a person's ability to perform everyday activities independently. Therefore, the consequences of Type 1 diabetes extend beyond physical health and should be considered from a person-centred perspective that recognises psychological, social and practical needs.

Health and social Care Support for Type 1 Diabetes

People living with Type 1 diabetes may require support from different health and social care services to manage their condition safely and maintain their quality of life. A coordinated, multidisciplinary approach is important because the condition requires lifelong management.

A multidisciplinary diabetes team may include doctors, diabetes specialist nurses, dietitians and other healthcare professionals. Diabetes specialist nurses can provide education and guidance about insulin administration, glucose monitoring and recognising hypoglycaemia and hyperglycaemia. Dietitians can provide advice about healthy eating and carbohydrate counting.

People with Type 1 diabetes also require regular health checks and screening to identify complications as early as possible. These can include HbA1c measurements, blood pressure and blood cholesterol checks, kidney assessment, foot examinations and diabetic eye screening. Early identification of problems can allow appropriate treatment or referral to specialist services.

Psychological and emotional support may also be necessary. NICE recognises emotional and psychological support as part of appropriate diabetes care. Counselling, psychological services, structured education and peer-support opportunities may help individuals manage diabetes-related distress and improve their confidence in self-management.

Children and young people can require additional assistance from their families, schools and specialist paediatric diabetes teams. Adults may need support from healthcare professionals, employers and community services. If complications affect an individual's ability to live independently, social care services may also become important. Depending on assessed needs, this could include help with daily living and access to appropriate community support.

Overall, health and social care for people with Type 1 diabetes should be person-centred. Individuals should be involved in decisions about their treatment and care. Combining medical treatment, education, psychological support, screening and appropriate social care can help people manage their condition, reduce their risk of complications and participate fully in community life.

Conclusion

In conclusion, Type 1 diabetes is a lifelong condition requiring continuous treatment and careful management. Individuals need insulin because their pancreas produces little or no insulin. Regular glucose monitoring, and HbA1c testing are important for assessing how effectively glucose is controlled. Healthy eating, carbohydrate counting, physical activity and appropriate insulin therapy can help individuals manage their condition and reduce complications. However, Type 1 diabetes can affect physical health, emotional wellbeing, education, employment and social participation. Poorly managed diabetes can contribute to serious short-and long-term complications. Therefore, people with Type 1 diabetes require person-centred support from multidisciplinary health and social care services. Access to appropriate treatment, education, regular screening, psychological support and community services can support effective self-management, promote independence and improve quality of life

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