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**Diabetes Management Policy**

**[Date of Issue]**

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| Policy Lead: | [Policy Lead] |
| Version No. | 1 |
| Date of Issue: | [Date of Issue] |
| Date for Review: | [Date of Review] |

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**All staff members should work within the scope of their practice. The diagnosis and management of diabetes is a complex issue. Symptoms of Hypoglycaemia are not dissimilar to symptoms of cerebral or cardiac events. Staff not trained in its management and have concerns about a client and the path of action is not clearly mandated in a care plan they should contact either [Clinical Lead Name], 111 or 999. If a staff member has any concern about their ability, competence, or level of training to carry out any action they should speak to [Clinical Lead Name] for clarification.**

# Introduction

Diabetes Mellitus (diabetes) is a complex metabolic disorder resulting in the body's inability to use glucose (sugar) normally. Glucose is the primary energy source for the body's cells and is controlled by insulin (a hormone which is produced in the pancreas). Although there is no cure, proper management and care can allow clients to have a good quality of life.

# Policy Statement

[Company Name] will ensure a positive experience of care, a safe monitoring system and competently trained staff to educate and support any clients with diabetes in our care.

# Scope

This policy and the procedures apply to all staff members working with clients living with diabetes.

The Registered Manager is responsible for supporting staff in the management of diabetes and for ensuring that the contents of this policy remain current and in line with current standards for best practice.

# Definitions

**Type 1 (insulin dependent diabetes mellitus (IDDM)):** often begins in childhood and occurs because the insulin-producing cells of the pancreas (beta cells) get damaged with antibodies. Thus, insulin is not produced correctly, with little or none being produced. This lack of insulin results in sugar (glucose) not being able to enter the body's cells for energy. Insulin must be injected in Type 1 diabetes to maintain control.

**Type 2 (commonly non-insulin dependent diabetes mellitus (NIDDM))**: whereby the body usually produces some insulin but not enough. This type is often less serious and is more common overall. Type 2 can be well controlled with lifestyle changes. However, some clients will require medication.

**Gestational diabetes:** diabetes that occurs during pregnancy.

# Procedures

Staff members at [Company Name] are expected to understand the different types of diabetes, as well as its common risk factors and symptoms to ensure early intervention. Although a definitive cause for diabetes is not yet known, there are several risk factors that can increase a person’s chances of developing the disease, including:

* Family History
* Illness or Injury to the pancreas, such as infection, surgery, or tumour
* Age (risk increases with age)
* Autoimmune disease
* Ethnicity
* High blood pressure and raised cholesterol
* Smoking
* Obesity and inactivity
* Certain medicines, such as steroids.
* History of gestational diabetes
* Diet.

Symptomsof diabetesinclude:

* Polyuria (frequent urination)
* Polydipsia (excessive thirst)
* Dry mouth
* Weakness, blurred vision, slow healing, tiredness and numbness or tingling of the limbs
* Unexplained weight loss
* Feeling very tired
* Itching around penis or vagina or frequent episodes of thrush
* Cuts or wounds that heal slowly.

Staff members who suspect a client of suffering from undiagnosed diabetes mellitus should either arrange a referral to their GP or encourage the client and/or their relatives/carers to do so for further investigations to be undertaken.

# Diagnosis

A diagnosis of diabetes can be determined through the following:

* fasting venous blood glucose of 7.0 mmol/l or greater
* HbA1c venous sample of 48 mmol/l or greater (6.5%)
* a medical diagnosis in line with the criteria set out by the World Health Organisation (2019) and cited in NICE Guidelines (2021)
* fasting blood sugar tests or an A1c test (glycated haemoglobin tests). A normal fasting blood sugar would be less than 100 mg/dl (5.6 mmol/l). A1c does not require the client to be fasting
* any symptoms of diabetes, as detailed above
* random venous plasma glucose concentration of 11.1 mmol/l
* two-hour plasma glucose concentration 11.1 mmol/l two hours after 75g anhydrous glucose in an oral glucose tolerance test (OGTT).

In the absence of any symptoms, a diagnosis should not be based on a single glucose determination. Instead, blood glucose should be confirmed with a venous blood plasma reading. At least one additional glucose test result on another day is essential, including either a fasting glucose from a random sample or from a two-hour post glucose load. If fasting or random values are not diagnostic, the two-hour values should be used as per the WHO and NICE Guidelines. Diabetes is also diagnosed by one of the following:

* a blood sugar level equal to or greater than 126 mg/dl (7 mmol/l)
* two random blood sugar tests greater than 200 mg/dl (11.1 mmol/l) with symptoms
* an oral glucose tolerance test with the result over 200 mg/dl (11.1 mmol/l)
* an A1c test greater than 6.5 per cent on two separate days.

Note: Clients with acute infection, trauma, circularly or other stress may also experience transitory hyperglycaemia which is diagnostic of Diabetes.

# Care Planning

Diabetes management and treatment will be approached in an individualised fashion taking into consideration personal needs and situations. An individual management plan should be developed with a person-centred and evidence-based approach. It should be frequently reviewed and audited in accordance with changes to national and international guidance and legislation, and as the client's condition or general health changes.

All individual management care plans should include the client's personal details, date, key roles, responsibilities, targets, outcome measures and any requirements for specialist review. For example, care plans should consider:

* implementation of good clinical practice guidelines
* annual diabetes reviews with a qualified medical professional
* a dedicated 'Diabetes Key Worker' or 'Diabetes Champion'
* Initially every 3 months Blood sugar checks (HbA1C test) then every 6 months
* Client education - Healthy living for people with type 2 diabetes - online course from the NHS and Diabetes education and self-management for ongoing and newly diagnosed (DESMOND) NHS course
* Routine skin assessments, with observation for foot problems - at least once a year
* Dietary advice
* Yearly eye assessments
* Diabetes ID Bracelet
* Inform DVLA.

# Management and Treatment

The main goals of managing any client with diabetes include:

* maintaining a blood glucose level as close to normal by balancing food intake with medication and exercise
* keeping blood cholesterol and triglyceride (lipid) levels as close to normal ranges as possible
* controlling blood pressure to under 140/90 mmHg
* decreasing or preventing the development of any diabetes-related health problems.

**Blood Glucose Monitoring (BGM)**

Staff members carrying out or supervising BGM will be required to have the relevant training, competence, and confidence to carry out the monitoring safely and appropriately. Staff members are responsible for identifying their own training needs and for requesting additional training where they do not feel adequately competent.

The Registered Manager is responsible for the ongoing care and maintenance of any blood glucose meter(s) owned by [Company Name].

Any care plan that includes BGM should be person-centred, individualised and include:

* the frequency of testing
* blood glucose targets.

All results should be accurately recorded, with any concerning abnormal results being escalated to a more senior member of staff for advice and potential review. As BGM is an invasive procedure, consent must be sought from the client prior to being undertaken and self-testing should be encouraged where possible. BGM recordings should contain the following information:

* date and time
* test strip lot number
* control Solution Batch Number – when opened
* range expected
* result
* signature.

All equipment should be checked, cleaned, stored, and maintained safely. Staff members using any equipment must follow the manufacturer's instructions and quality controls are to be practised and recorded as recommended by the manufacturer.

**Interpretation of blood glucose measurements**

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| --- | --- |
| Blood Glucose Level | Indication |
| ≤ 5 mmol/l | Hypoglycaemia  -aassess for symptoms, if any  -administer sugar source as per care plan  -seek medical advice if needed. |
| 5–8 mmol/l | Acceptable level. Although hypoglycaemic symptoms can occur at these levels in some clients. |
| 8–11 mmol/l | Suggested level for glucose range in older adults to reduce the risk of hypoglycaemia. |
| 11–15 mmol/l | Mild hyperglycaemia  -will require escalation to a senior member of staff if the level occurs more than 3 times in one week. |
| ≥ 15 mmol/l | Hyperglycaemia:  -escalate to senior member of staff  -test urine for ketones, if positive, refer urgently to the clients GP or a 111 clinician, if negative suggest the client reports to GP for a routine medication review. |

**Medications**

All ordering, storage, checking and administration of diabetic medicines, including insulin, must follow the guidelines detailed in [Company Name]’s Medicines Management Policy. Treatment with medications varies depending on the client's condition, glucose levels and individualised plan, but may include:

* insulin, may be rapid-acting, short-acting, or long-lasting
* oral medications, including Metformin, Sulphonylureas, Thiazolidinediones etc.

Clients should be closely monitored for side effects, with medical referral being considered for any that are not tolerated.

Insulin injections are most commonly required in Type 1 diabetes, with the amount varying from client to client depending on their clinical situation. Insulin must only be administered by trained staff or the client, where they have been trained to self-administer it, and injection sites should be rotated to avoid reactions.

Where an insulin pen is not in use, insulin should only ever be measured with an appropriate insulin syringe. Devices, such as insulin administering pens and syringes, will always be marked in units, and should never be measured with an intravenous syringe marked in millilitres (ml). Insulin must never be extracted from pen devices or cartridges. Lancets used for finger pricking are single use only and should be person specific.

Dispose of sharps in the appropriate sharps container and in line with [Company Name]’s waste management protocols.

In comparison, Type 2 diabetes often requires healthy lifestyle changes, such as a well-balanced low sugar diet, weight control and exercise. Although, treatment may also include oral glucose-lowering medications or insulin injections in more severe cases.

# Management of Complications

**Hypoglycaemia**

Hypoglycaemia is the most prevalent complication of diabetes and occurs when blood sugar levels are less than 70 mg/dl (3.9 mmol/l). In terms of managing hypoglycaemia, prevention is better than a cure and staff members should encourage clients with diabetes to maintain:

* regular mealtimes
* strict monitoring of medications
* avoidance of overloading on starchy foods
* avoidance of excessive strenuous exercise
* avoidance of excessive alcohol intake.

Symptoms of hypoglycaemia include:

* feeling weak or dizzy, including trembling and feeling shaky
* feeling hungry
* sweating and pallor
* palpitations
* feeling anxious, confused and/or inattentive
* headache
* poor coordination
* bad dreams
* irritability
* loss of sensation of the mouth and tongue
* unconsciousness.

Clients suffering from a hypoglycaemic attack with a blood sugar below 3.5 mmol/l or who are symptomatic should be treated as follows:

* provided with a sugary drink or snack-like fruit juice/fizzy drink (not diet), sweets, 3-6 glucose tablets or 1-2 tubes of glucose gel in line with client preference and safe swallowing ability
* re-test the blood sugar after 10 minutes and if it has improved and the client feels better encourage them to eat a meal containing a slow-release carbohydrate. If the level remains low give another sugary treat and retest after another 10-15 minutes.
* if the client has lost consciousness or is drowsy put the client in the recovery position, consider an injection of glucagon medication if available and adequately qualified. If not available or qualified contact the emergency services (999)
* allow approximately 10 minutes after administration of the injection and then reassess:
  + if the client remains drowsy or non-responsive contact the emergency services (999) and request an ambulance or contact 111 for an urgent clinician referral, dependent upon the client’s condition
  + if the client responds within 10 minutes, give them a sugary drink or snack followed by their main meal, only where they are at no risk of choking due to drowsiness, and request an urgent review by their GP.

[Company Name] will have a hypoglycaemic treatment box (hypo box) which staff will be trained to use. The hypo box will include items such as oral glucose, glucose tablets and glucose gel. Hypo boxes will be stored and maintained safely and within easy reach of staff in case of an emergency. Hypo boxes should be checked regularly with all expiry dates being checked and out of date stock being discarded and replaced immediately.

**Hyperglycaemia**

Very high blood glucose levels (hyperglycaemia) can be life-threatening and requires immediate medical attention. The main complications of high blood sugars are:

* Diabetic Ketoacidosis (DKA) – the body needs to break down fat (lipids) as a source of energy, which can lead to a diabetic coma
* Hyperosmolar Hyperglycaemic State (HHS) – severe dehydration can occur because the body is trying to expel excess sugar and leads to serious health issues. Good monitoring of fluid input and output can help manage this potential occurrence.

**Other long-term complications**

Other potential complications of raised blood glucose levels include:

* retinopathy (eye disease) – regular ophthalmologist appointments should be attended
* nephropathy (kidney disease) – annual urine tests should be carried out, along with regular blood pressure checks, as controlling high blood pressure slows down kidney disease
* neuropathy (nerve disease) – clients should be encouraged to report any numbness or tingling sensation, in addition to checking their feet for redness, cracks, tissue breakdown and other unusual symptoms
* other eye problems including diabetes, glaucoma, cataracts, and blurred vision
* heart attacks, stroke and high blood pressure.

# Monitoring

The effectiveness of this policy will be monitored through routine auditing along with investigation into any adverse events or poor client outcomes.

# Related Policies

* Consent (Adults) Policy
* Medication Management Policy
* Mental Capacity Act and DoLS Policy
* Nutrition and Hydration Policy
* Pressure Ulcers Policy

# Legislation and Guidance

**Guidance**

* [Living with diabetes | How to manage diabetes | Diabetes UK](https://www.diabetes.org.uk/guide-to-diabetes)
* Clinical practice guidelines for care home residents with diabetes <https://www.diabetes.org.uk/resources-s3/2017-09/Care-homes-0110_0.pdf>?
* [What is diabetes? | Getting to know the basics | Diabetes UK](https://www.diabetes.org.uk/diabetes-the-basics?gclid=EAIaIQobChMI4ozo44n19QIVCbDtCh2nCw4jEAAYAyAAEgLtSvD_BwE)
* NICE Quality Standard for Diabetes (2021) Clinical guidelines
* NHS England- Action for Diabetes- <https://www.england.nhs.uk/rightcare/wp-content/uploads/sites/40/2016/08/act-for-diabetes-31-01.pdf>
* [Resources to improve your clinical practice | Diabetes UK](https://www.diabetes.org.uk/professionals/resources/resources-to-improve-your-clinical-practice)
* Diabetes Mellitus: Types, Risk Factors, Symptoms, Treatments. <https://my.clevelandclinic.org/health/diseases/7104-diabetes-mellitus-an-overview>
* Diabetes UK Management of Diabetes in Care Homes
* [Covid-19 and Diabetes -Care Home Guidance - Final Document - 29.04.2020.pdf](https://www.diabetes.org.uk/resources-s3/public/2020-04/Covid-19%20and%20Diabetes%20-Care%20Home%20Guidance%20-%20Final%20Document%20-%2029.04.2020.pdf)

# Summary of Review

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| --- | --- |
| Version | 1 |
| Last amended | [Date of Issue] |
| Reason for Review |  |
| Were changes made? |  |
| Summary of changes |  |
| Target audience | Care staff, Managers |
| Next Review Date | [Date of Review] |