**Diabetes Management**

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Subject

Lecturer

Date

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Diabetes is a chronic medical condition that is characterized by high blood sugar levels, this is a result of the pancreas's failure to release insulin to control the sugar level (Centers for Disease Control and Prevention, 2023). To regulate the glucose level, the patient has to take artificial insulin as administered by the health practitioner (Diabetics Focus eMag, 2020). The interviewee has to be on constant alert to ensure the levels are kept normal which is not an easy feat. I noted the concern especially on diet since it plays a significant role in glucose levels in the blood stream. These recommendations will attempt to address and tackle the interviewee's concerns and challenges regarding the management of the condition.

Food is essential for all living organisms. However, to achieve a healthy body, what we consume must be taken into account whether diabetic or not. it's not only the amount of food consumed but also the quality that matters. A diabetic patient should take that quality into account. This is paramount to achieving normal functioning of the body and avoiding further grave medical complications. Carbohydrates are essential to the body since they provide energy. These foods are broken down into glucose and thus have an impact on blood sugar levels. Regulation can be done by researching different types of food and their carbohydrate content and finally creating a table to indicate the findings per portion. Watching one's servings per meal is key especially when mealtime insulin is prescribed so as to know the proper dosage.

Dieted meals should also be put into consideration. A well-balanced meal should consist of proteins, carbohydrates, vitamins, and fats. Fruits and vegetables are low in carbohydrates but high in fiber content. Dietary fiber or roughage is essential to the body’s digestive system and the recommended daily intake is between 25 to 30 grams excluding supplements The University of (California San Francisco, n.d.). These are plant foods that cannot be digested or absorbed by the human esophagus and can be classified as soluble or insoluble fiber. Soluble fiber mixes with water resulting in a gel-like substance that plays an important role for a diabetic by lowering glucose levels and cholesterol. Foods such as carrots, beans, peas, barley, psyllium, and citrus fruits are rich in soluble fiber. Intake of these foods slows down sugar absorption thus keeping glucose levels in check (The University of California San Francisco, n.d.).

Insulin is a vital medication for a diabetic. There are two types of insulin i.e. basal insulin and bolus insulin and are both prescribed for this condition, the combination is known as basal-bolus therapy. (John Hopkins Medicine, n.d.). Basal insulin is administered once or twice a day depending on your doctor's recommendation. It acts by maintaining blood sugar levels when a person is not eating by converting glucose to energy efficiently. Examples of this type of insulin are glargine (Basaglar or Toujeo), detemir ([Levemir](https://www.medicalnewstoday.com/articles/327119)), and degludec (Tresiba) (Alan & David, 2019). In addition, for type 2 diabetes you may need to take oral, non-insulin medication to measure blood sugar levels.

Bolus insulin or rapid-acting insulin is taken during meals to stabilize blood sugar levels. Balancing meals and medication is crucial in the prevention of hypoglycemia which is a condition brought by low glucose levels in the blood, in this case, taking too much insulin versus low carbohydrate (Diabetics Focus eMag, 2020). The opposite of this condition is hyperglycemia. These conditions are common and accidental in most cases as patients may not be aware of the carbohydrate or sugar content in foods and how to balance this with the medication. For example, if you take 8 units of standard dose rapid insulin with dinner. It is best when you have pasta but excessive when you have turkey tacos and lettuce wraps (Sade Meeks et. al, 2021). It is important to properly estimate the amount of carbohydrate intake. To avoid this, consult a doctor or dietitian to get the correct dosage and amount of food to consume.

As much as this medication plays a crucial role it has its downsides such as multiple injections sometimes as high as four, this may be challenging especially if you are a trypanophobiac. Routine adaptation might be socially and emotionally challenging since some people may find it odd when a person is taking medication in public and view it as a discomfort. Insulin has a tendency to reduce dopamine levels. Dopamine is a chemical released by the brain for one to feel pleasure, satisfaction, motivation, and general mood (John Hopkins Medicine, n.d). Due to low levels of dopamine, diabetics may be judged as grumpy or inactive individuals by society, this results in stigmatization which negatively impacts their emotions resulting in stress. The last thing a person under medication needs is stress. For clinical drugs to work, one needs to be stress-free since stress modifies their pharmacological and toxicological potency by interfering with the activity of CYP isozymes which affect the metabolism of these drugs. Lastly keeping stock of both medications can present a challenge.

When it comes to diabetes, sugar pops up. Sugar can be found naturally in fruits, vegetables, and dairy products (Sade Meeks et. al, 2021). Free sugars are types of added sugars for example by food manufacturers or at home when one adds sugar to foods. From a medical perspective, the debate about sugar mainly focuses on free sugars. Types of free sugars include Table sugar, castor sugar used in baking, and pure fruit juice. Table sugar is a nutritive sweetener composed of glucose and fructose molecules, it is the most common sugar the same goes for castor. Sugar has a high calorie content and excessive intake leads to overweight and increases the chances of one getting type 2 diabetes. It should be noted that sugar does not directly cause type 2 diabetes. The recommended sugar intake for an adult is 30 grams a day. (John Hopkins Medicine, n.d).

Whole foods like fruits and vegetables do not have a high sugar content compared to processed foods such as chocolates, biscuits, and sodas hence do not release as much dopamine. To maintain a high dopamine level, the brain needs a constant supply of sugar which explains the craving for sugary foods. Control of junk food intake is essential; this can be done by resisting the temptation of consuming high-sugar content (The University of California San Francisco, n.d.). Manufacturers tend to brand processed foods as ‘reduced fats’ to portray them as healthy with the aim of increasing sales, this type of misinformation is misleading as fats are substituted with sugars to maintain taste and texture. Foods that are high in processed sugars should be avoided as much as possible, especially for a diabetic. Vigilance must be taken when purchasing processed foods by checking their nutritional content.

Physical exercise is another important part of managing one’s diabetes and also goes hand in hand with dietary plans. During exercise, muscles use glucose thus reducing levels in the blood (Sade,2021). The more intense the workout the longer the effects. Simple tasks such as house chores, walking, standing, and mowing cannot be underestimated since they also have a similar effect. It is important to consult a doctor to give his recommendation on suitable aerobics and muscle-strengthening workouts. It is important to check the blood sugar levels and drink plenty of water because dehydration leads to high concentrations of glucose in the blood. Preparation for a workout is highly recommended, this involves carrying medication and small snacks in case the blood sugar level plummets. (Locke & Carol, 2022) Adjustment of insulin dosage should be considered. Reduction of insulin dosage before working out and monitoring blood sugar levels afterward is crucial as delayed hypoglycemia may occur.

Diabetes is a terminal illness that requires dedication, sacrifice, resilience, and personal emotional strength and support from the community. The interviewee being recently diagnosed with diabetes faced difficulties in certain areas such as proper diet, and failure to adapt to the new routine of balancing insulin with food taken. It is crucial for the interviewee to maintain regular consultations with a doctor since these recommendations are general in nature. Expert advice is at all times required to suit the specific needs of the patient in question.

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