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## The dietary management of older people with diabetes.

### Abstract

The revised nutrition guidelines for the prevention and management of diabetes encourage education for self-management which include additional guidance for older people with diabetes have been published this month. There is an increasing incidence of diabetes in older people. Many are healthy and mobile however a number are frail and living in care homes. Those who are frail are at increased risk of malnutrition from a range of causes. Older people with diabetes should be assessed for malnutrition risk with a referral to a dietitian as required. Management of these patients is with a focus on high protein and high energy foods. A case study is given as an example of how a community nurse may be involved.

Key words: diabetes, nutrition risk, malnutrition, frailty, dietitian

### Main article

Nutrition and diabetes in older people is highlighted this month with the publication of the updated Diabetes UK evidence-based nutrition guidelines for the prevention and management of diabetes (Diabetes UK. 2018 ).This article discusses the points made in these new revised guidelines focussing on older people living in the community or in a care home who have or are at risk of malnutrition. Explanations are given as to why older people with diabetes are at a greater risk of malnutrition, actions that can be taken in the community are discussed and the potential management that may be undertaken with the support of a dietitian.

With the increasing incidence of diabetes generally, coupled with the association of type 2 diabetes with age, there are more older people with diabetes living in the community with up to 27% of those in care homes having diabetes (Sinclair, Gadsby et al. 2001). The European Diabetes Working Party

for Older People (Sinclair, Paolisso et al. 2011) recommend that all new residents to care homes are tested for diabetes on admission.

There is no specific prescription for a diet for diabetes, and an individualised food based approach should be taken (Diabetes UK. 2018 ). This in particular applies to older people where there is a range of morbidity experienced from those who remain healthy and mobile to those who are frail and at increased risk of malnutrition. Each situation will require a different approach.

Older people with diabetes especially those who are healthy and mobile benefit from self-management advice (Sherifali, Bai et al. 2015), so it is important to refer those who are newly diagnosed to a dietitian and or to a structured education programme (Diabetes UK. 2018 ). Those who are living independently in the community or in a residential home, who are well and able to go to appointments should be encouraged to go (International Diabetes Federation. 2013), accompanied by their care giver where appropriate.

With increasing age muscle mass is reduced and so older people have reduced energy needs but as their protein and micronutrient requirements remain the same (Kirkman, Briscoe et al. 2012), they are at greater risk of malnutrition (Turnbull and Sinclair 2002, Vischer, Perrenoud et al. 2010).

Malnutrition is associated with longer and more frequent hospital admissions, increased morbidity for example pressure ulcers, delirium, and depression and increased mortality. There are a range of possible causes of malnutrition. One cause affecting nutritional intake is following an overly restricted diet that is no longer appropriate (Darmon, Kaiser et al. 2010). A referral to a dietitian for a reassessment of nutritional needs and tailored advice would be warranted in such cases.

Other aspects that are associated with malnutrition and ageing include a decline in the ability to taste and smell and a reduction in appetite. For example in care homes older people in unfamiliar surroundings may refuse to eat unfamiliar foods. Oral and dental issues (people with diabetes are three time more likely to develop gum disease than people without diabetes (Mealey and Oates 2006)) and swallowing difficulties may also be contributory factors. There is a greater risk of frailty,

and sarcopaenia (Sinclair, Abdelhafiz et al. 2017). Frailty and sarcopaenia are linked with limited mobility affecting the ability to shop and cook for those in the community and contributing to fatigue and reduced appetite in those living in care homes.

Therefore older people with diabetes who are receiving ongoing care should be assessed for nutrition risk using a validated screening tool (NICE 2012) such as the MUST risk score tool (BAPEN 2016). Details about the tool, its use in the community setting and a policy on actions that could be taken will be available from the local nutrition and dietetic department. Further details on nutritional actions can be found in the malnutrition pathway (<http://www.malnutritionpathway.co.uk/> 2017).

In order to prevent and manage malnutrition it is recommended that in nursing homes where there are older people with diabetes, that a menu consisting of normal foods that are not low in sugar and energy is implemented. Dietitians can help advise on a suitable menu and where there are older people with diabetes who are frail they may suggest a menu that is high in energy and protein in particular whey protein, in vitamin D (Bauer, Verlaan et al. 2015) and other micronutrients as a matter of course (CADTH Rapid Response Service. 2015, Public Health England. 2017). Dietitians will be able to advise on an approach which aims to avoid hypoglycaemia and symptomatic hyperglycaemia and to maximise nutritional intake. This will usually start with ensuring a regular amount of foods containing carbohydrate such as bread, potatoes, breakfast cereals especially for those who are taking medications which lower blood sugar (insulin, sulphonylureas). Maximising nutritional intake involves encouraging the consumption of foods that are high in protein and energy that are currently enjoyed. Additional recommendations would include an introduction of regular meals and snacks between meals and the use of food fortification with high protein foods such as milk powder, cheese or high energy foods such as cream or butter. The dietitian may also talk to the care home about the environment in which meals are taken to suggest soft lighting and music and a

social atmosphere which have been found to help promote nutritional intake (Nieuwenhuizen, Weenen et al. 2010).

## Conclusion

An individualised approach to the management of diabetes is especially relevant for those working in the community with older people where there are a wide range of potential issues impacting on the condition. With the high incidence of diabetes and an increased nutrition risk in older people, new clients should be assessed for diabetes and for risk of malnutrition and referrals made to the dietitian where appropriate.

## Key Points

- Diabetes in older people is associated with increasing frailty and sarcopaenia and risk of malnutrition
- Those who are newly diagnosed with diabetes should be referred for structured education. ,
- Healthy eating guidelines should be relaxed for older people with diabetes because of the risk of malnutrition with a focus on fluid and carbohydrate intake to prevent dehydration and hypoglycaemia.
- Older people with diabetes should be assessed for nutrition risk using the MUST nutrition risk score tool
- People with diabetes and those who are at risk of malnutrition should be referred to a dietitian for tailored advice.
- Interventions to manage or prevent malnutrition include an increase in foods high energy and protein, regular meals and snacks and fortification of foods with high protein high energy foods such as milk powder, cheese, cream butter.

## An example case study

Mr X is a 80 year old man who was diagnosed with type 2 diabetes 10 years ago on Gliclazide with an HbA1c of 80mmol/mol, had knee replacements in both knees, being visited for dressing replacement. He has been relying on meals from his daughter but has lost his appetite because of the pain, has lost weight and is continuing to avoid all sugary foods and drinks as he is worried about his HbA1c. The community nurse has found that he is nutritionally at risk and so a referral is made to the dietitian. The dietitian advises regular nutritious meals and snacks without over restricting sugary foods and drinks and regular fluid intake to help prevent dehydration.

## Reflective questions/activities

- Consider the above case. Do you have any clients that may fit into this group?
- Review your current case load, do you have any clients that you feel may be at risk of malnutrition?
- Find out who your local dietitian is, make contact and ask about the nutrition risk score tool that they use.

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