Management & prevention of type 2 diabetes

Diabetes and dementia in older people: A Best Clinical Practice Statement

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Diabetes and dementia are both common long-term disabling conditions. They coexist in a large number of older people by the fact of their high prevalence rates, and there is evidence of a direct association between the two conditions with a 1.5- to 2-fold increased risk of dementia in people with type 2 diabetes.

Mental health services often do not screen for diabetes in people with dementia and mental health staff are unlikely to have received any specific training in diabetes management. In most hospitals, out-patient departments and general practices, there has been little or no routine screening of people with diabetes for cognitive dysfunction.

There is a need, therefore, to ensure that both mental health professionals and diabetes healthcare professionals understand more about the coexistence and association of the conditions, and are organised to promote case finding and easy access to high quality care for those with diabetes complicated by cognitive impairment or dementia, and those with dementia complicated by diabetes.

A *Best Clinical Practice Statement* for diabetes and dementia in older people (summarised alongside) was drawn up by a multidisciplinary group with expertise from both the dementia and diabetes fields and was underpinned by a literature review. However, in view of the limited evidence of original research in this area, the consensus views of the working group were developed using a collaborative approach. The Statement advises that a brief cognitive screening test, such as the Mini-Cog test, be routinely used as part of the diabetes annual review. When dementia is suspected, the approach to assessment should follow that recommended by NICE (2006).

The *Best Clinical Practice Statement* identifies a number of "Principles of Diabetes Management" for people with diabetes and dementia, they are as follows:

1) Review regularly the ability to self-manage diabetes in the context of dementia, assessing the need for appropriate support and input.

2) Consider problems of adherence to medications, aiming to simplify medication regimen by reducing the total number of tablets prescribed, ***and*** giving them once a day wherever possible.

3) Prescribe glucose-lowering medications with a low risk of causing hypoglycaemia wherever possible (i.e. avoiding sulphonylurea and/or insulin if possible).

4) Review the nutritional status of people with diabetes and dementia to try to maintain weight and good nutrition.

5) Ensure appropriate control of all vascular risk factors such as blood pressure, glycaemic control and cholesterol levels, whilst minimising the risk of hypoglycaemia and hypotension. It may be appropriate to exclude people with diabetes and dementia from the Quality and Outcomes Framework (QOF) intermediate outcomes for diabetes if QOF levels would be considered clinically inappropriate for the individual.

6) It is important to recognise the onset of the terminal phase of severe dementia and to modify medications appropriately.

7) The informal carers of people with diabetes and dementia need to be recognised, supported and helped.

This Best Clinical Practice statement is important and timely because many clinicians managing people with diabetes are seeing an increased number of people who also have dementia, and it provides useful information to help clinicians manage people with both conditions. ■

NICE (2006) *Dementia: supporting people with dementia and their carers in health and social care* (CG42). NICE, London

Diabetic Medicine

Best Clinical Practice Statement: Diabetes and dementia in older people

Readability	✓✓✓✓✓
Applicability to practice	✓✓✓✓✓
WOW! Factor	✓✓✓✓

1 T2D is known to be associated with a 1.5- to 2-fold increased risk of dementia, and the care of a person with dementia who develops T2D can be difficult to manage, especially for self care.

2 Mental health services do not usually provide assessment programmes for diabetes, and acute hospital settings do not routinely provide assessments for cognitive problems.

3 This gap in service provisions led the Institute of Diabetes for Older People along with a National Expert Working Group to compile a *Best Clinical Practice Statement* to enhance the quality of care of the growing number of older people with diabetes and dementia.

4 The statement outlines an integrated care pathway; guidance on identifying each condition; the important competencies required of healthcare professionals in the diabetes and mental health settings; and practical guidelines such as managing hypoglycaemia.

5 A brief cognitive screening test is advised for people with diabetes if clinicians and/or their carers have concerns about their memory, and should then be part of the annual review. Guidance was given on the method of detection for diabetes and dementia, the management principles for clinicians and carers to follow and core competencies were explained for staff involved in the care and management of people with diabetes and dementia.

Sinclair AJ, Hillson R, Bayer AJ (2014) Diabetes and dementia in older people: a Best Clinical Practice Statement by a multidisciplinary National Expert Working Group. *Diabet Med* **31**: 1024–31

Diabetic Medicine

Effect of QOF on pharmacological management

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! Factor	✓✓✓✓✓

1 The Quality and Outcomes Framework (QOF) is the most comprehensive pay-for-performance scheme for primary care in the world to date and was established in 2004.

2 The aim of this study was to determine whether the financial incentives for tighter glycaemic control set out by QOF increased the rate at which people with newly diagnosed T2D were started on anti-diabetes medication.

3 A secondary analysis of data from the General Practice Research Database from 1998–2008 was performed of a sample of 21 197 people with newly diagnosed T2D.

4 The introduction of the QOF targets for tighter glycaemic control led to an increase in the proportion of people with newly diagnosed T2D being started on medication within 2 years of diagnosis.

5 In the 5 years before the QOF, there was a decreasing trend in the proportion of people pharmacologically treated in the first 12 and 24 months of T2D diagnosis.

6 In the 5 years after, the decline was reversed and there was an annual increasing trend of 1.89% and 1.57% in the proportion of people treated pharmacologically in the first 12 and 24 months respectively.

7 The authors note that an alternative explanation to the increase in pharmacological management could be caused by improvements in physician and individual awareness of the importance of tight glycaemic control in diabetes.

Gallagher N, Cardwell C, Hughes C, O'Reilly D (2015) Increase in the pharmacological management of type 2 diabetes with pay-for-performance in primary care in the UK. *Diabet Med* **32**: 62–8

Diabetes Care

Diabetes remission

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! Factor	✓✓✓✓

1 The study sought to measure the rate of remission among people with T2D who had not undergone bariatric surgery, but remained on usual care.

2 The cohort was a ethnically diverse population of 122 781 insured individuals with T2D from the US, accounting for 709 005 person-years.

3 Remission was defined as the absence of ongoing drug therapy: partial remission (at least 1 year of subdiabetic hyperglycaemia); complete remission (at least 1 year of normoglycaemia) and prolonged remission (complete remission for at least 5 years).

4 The incidence densities of partial, complete and prolonged remission in the full cohort were 2.8, 0.24 and 0.04 cases per 1000 person-years, respectively. The 7-year cumulative incidences of partial, complete and prolonged remissions were 1.5%, 0.14% and 0.01% respectively.

5 The authors concluded that remission of T2D can occur without bariatric surgery, but it is very rare.

Karter AJ, Nundy S, Parker MM et al (2014) Incidence of remission in adults with type 2 diabetes: the diabetes & aging study. *Diabetes Care* **37**: 3188–95

Diabetes Obes Metab

Meta-analysis: Hypoglycaemic risk and sulphonylureas

Readability	✓✓✓✓
Applicability to practice	✓✓✓✓
WOW! Factor	✓✓✓✓

1 A meta-analysis was completed to assess the hypoglycaemic risk with sulphonylureas in comparison to placebo or other drugs.

2 Randomised controlled trials that had a duration of ≥24 months and enrolled people with T2D were included. A total of 1623 abstracts were initially identified and 69 were eligible for inclusion.

3 The cumulative incidence of severe hypoglycaemia among people treated with sulphonylureas was 1.2% (1.0–1.6%). The overall risk of severe hypoglycaemia with sulphonylureas was increased more than 3-fold compared with other comparators.

4 The incidence of any hypoglycaemia was higher in trials enrolling patients with higher BMI and lower HbA_{1c}.

Monami M, Dicembrini I, Kundisova L et al (2014) A meta-analysis of the hypoglycaemic risk in randomized controlled trials with sulphonylureas in patients with type 2 diabetes. *Diabetes Obes Metab* **16**: 833–40

JAMA

Prevalence and incidence trends

Readability	✓✓✓
Applicability to practice	✓✓✓
WOW! Factor	✓✓✓✓

1 Data from 1980–2008 were used to measure the prevalence and incidence trends of diagnosed diabetes (T1D and T2D combined) in the US among adults aged 20 to 79 years. Data from 664 969 people were used to calculate the annual percentage change (APC).

2 During the 1980s, the APC for age-adjusted prevalence and incidence of diagnosed diabetes did not change significantly. From 1990–2008, they both increased sharply each year, and then both plateaued between 2008–2012, showing no significant change.

3 The prevalence per 100 persons was 3.5 (95% confidence interval [CI], 3.2–3.9) in 1990, 7.9 (95% CI, 7.4–8.3) in 2008 and 8.3 (95% CI, 7.9–8.7) in 2012. The incidence per 1000 persons was 3.2 (95% CI, 2.2–4.1) in 1990, 8.8 (95% CI, 7.4–10.3) in 2008 and 7.1 (95% CI, 6.1–8.2) in 2012.

Geiss LS, Wang J, Cheng YJ et al (2014) Prevalence and incidence trends for diagnosed diabetes among adults aged 20 to 79 years, United States, 1980–2012. *JAMA* **312**: 1218–26

> *"The authors concluded that remission of T2D can occur without bariatric surgery, but it is very rare."*