Managing diabetes in people with dementia

In this article...

- Challenges in caring for people with diabetes and dementia
- Guidance on capacity and consent
- Ethical issues, including covert medicines administration

The number of patients with both type 2 diabetes and dementia is rising, which poses new challenges in blood glucose monitoring and medicines administration.

Type 2 diabetes

The incidence of type 2 diabetes is rising because of changing lifestyles and increasing longevity. Contributory factors include a diet rich in sugar and fats, poor exercise regimes and obesity. However, with early diagnosis and treatment, people are living with diabetes into old age.

Type 2 diabetes is most common in older adults, and in adults from African-Caribbean and South Asian communities. Almost 3 million people in the UK have a diagnosis of type 2 diabetes, which accounts for 90% of all cases of diabetes. It is estimated a further 850,000 cases remain undiagnosed. The prevalence of diabetes could nearly double in the next decade to affect 5% of the UK population without preventive measures (Trend-UK and IDOP, 2013; Diabetes UK, 2012).

Diabetes is a chronic rise in the body’s blood glucose concentration, because glucose is not absorbed into the body’s cells.

Insulin acts as a regulator of blood glucose (Williams and Pickup, 2005) and is produced by the pancreas. In diabetes, either the pancreas produces less insulin than is needed, or the insulin it produces is unable to work in its normal manner – for example because of excess body fat – this is
called insulin resistance. Exercise, a controlled diet and oral medication can allay the problems associated with type 2 diabetes.

Common signs and symptoms include:
- Thirst;
- Polyuria caused by passing large amounts of urine;
- Genital itching and urinary tract infections caused by increased bacteria;
- Delayed wound healing;
- Lethargy and fatigue because of a lack of energy;
- Weight loss;
- Visual problems.

However, people with type 2 diabetes may have no signs or symptoms that cause them to seek medical assistance.

Longer-term complications associated with diabetes include cardiac problems, strokes, visual problems, kidney failure and limb amputations. These have profound effects on people with dementia, leading to further deterioration in both conditions and increasing the risk of falls, immobility, communication decline and foot ulcers with a prolonged healing process (Diabetes UK, 2012; Holt and Kumar, 2010; Dunning, 2009).

Dementia

Dementia affects one in 20 people aged 65 years and over in the UK and one in five of those above 80 (Alzheimer’s Society, 2013). Almost 700,000 people have a diagnosis of dementia in the UK (Department of Health, 2013), but the Alzheimer’s Society (2013) suggests that almost 50% of those with dementia have no formal diagnosis. The incidence of the condition is also increasing and is expected to have doubled by 2033 (Alzheimer Scotland, 2013).

“Dementia” is an umbrella term that describes a group of symptoms caused by a variety of diseases that affect the brain. Its main causes are discussed below.

Alzheimer’s disease

This is caused by proteins and plaques that destroy brain cells. Once gone, they cannot be replaced. The area in which cell death occurs determines the outward signs and symptoms. There is also a reduction in neurotransmitters.

Alzheimer’s is a progressive disease. Its rate of progression varies from one individual to another and, as it progresses, the symptoms become more severe. There is no cure, and the condition typically leads to death. Common signs and symptoms include confusion, memory loss, disorientation, labile moods, frustration, withdrawal and isolation.

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settings, it is the nurse’s responsibility to ensure patients have adequate levels of hydration, and appropriate nutrition – with input from a dietitian if needed – and that blood glucose targets are set for the individual and routinely monitored. This role extends to educating the patient’s family or carers.

When possible, patients manage their diabetes in clinical settings, supported or facilitated by nurses (Dunning, 2009). Where patients cannot manage by themselves, nurses should provide an appropriate level of assistance and support.

Similarly, caring for people with dementia focuses on recovery and person-centred care, promoting independence, autonomy and self-determination for as long as is safe and feasible, and taking into account predetermined plans where longer-term care is necessary (Scottish Intercollegiate Guidelines Network, 2006). Independence and autonomy in diabetes management can be helped with aids such as dosette boxes, pharmacy-prescribed blister packs and memory aids such as alarms that prompt patients when medications are due. People with dementia should be assisted to maintain their optimum level of living, which will depend on the level of their dementia, the path it takes and their support network.

Managing both illnesses simultaneously can pose particular challenges for nursing care (Box 1, previous page). As the dementia progresses, and cognition and memory decline, management of diabetes will require increased input by nurses. Symptoms such as confusion – common in dementia and hypoglycaemia – must be accurately assessed and correctly treated.

Trend-UK and IDOP (2013) encourage the early diagnosis of dementia in people with type 2 diabetes, so regular assessments and reviews can be carried out to minimise the potential for damage.

**Blood glucose monitoring**

To monitor diabetes and calculate the dose of medication or insulin needed to maintain health and wellbeing, blood glucose monitoring is essential. It can take the form of a blood glucose meter test, a fasting venous blood sample or a glycated haemoglobin (HbA1c) test. Where patients can give informed consent and the nurse is satisfied they understand the procedure, he or she should follow standard procedures in accordance with local policy.

The National Institute for Health and Care Excellence (2010) recommends that, in addition to blood glucose monitoring, the following regular checks are made:

- Blood pressure;
- Cholesterol level;
- Retinal screening;
- Foot and leg check;
- Kidney function testing (urine);
- Kidney function testing (blood);
- Weight;
- Smoking status check.

In addition, Trend-UK and IDOP (2013) recommend regular screening for patients who are 65 years of age with type 2 diabetes, using a recognised dementia screening tool such as the Mini-Cog test (Bit.ly/AlzheimerMiniCog).

All the above interventions require consent and co-operation from the patient.

**Consent in diabetes and dementia**

Consent remains a priority and must to be obtained to monitor and treat the diabetes. However, this may not be forthcoming as patients may not understand the procedure or the nurse may be unsure of the patient’s comprehension, negating informed consent even when patients give it verbally (Royal College of Nursing, 2011). Patients may also be unable to cooperate with required procedures due to memory or cognitive issues, or fear or pain. Consideration should also be given to potential communication difficulties, sensory deficits, arthritic joints and issues with mobility.

Seeking and gaining consent when any nursing interventions are undertaken should be a routine part of nurses’ practice (Nursing and Midwifery Council, 2013). Where consent is denied, nurses must respect this, provided the patient understands the consequences.

When patients with diabetes also have dementia, it is imperative to discuss the situation with the patient and family to identify how procedures may have been conducted in the past, as patients may accept specific regimens for blood glucose monitoring and insulin administration. However, it may be that consent and concordance cannot be achieved because of communication or cognitive issues.

Where adults do not have the capacity to consent, nurses may, in emergencies, administer treatment if this would save the patient’s life or prevent deterioration in their condition, provided that the nurse does not know of any just reason not to do this (such as religious convictions or a recorded advance decision/directive).

For non-emergency treatment of an adult who does not have capacity to consent, different rules apply. In Scotland, the Adults with Incapacity (Scotland) Act 2000 (Scottish Government, 2010) requires a certificate of incapacity with a treatment plan to accompany it. In England and Wales, the Mental Capacity Act (2005) allows practitioners to act in the best interests of the person with incapacity, taking into account the individual’s past and present wishes and feelings.

Consideration must be given to minimise the number of blood glucose tests required and, if insulin is required, the type of insulin given so the number of injections is minimised (Box 2).

Following discussion with members of the multidisciplinary team and, where possible, family, covert medication may have to be considered (NMC, 2013). As a very last resort, minimum-force restraint for the shortest possible time to carry out a procedure in accordance with local and national policies may have to be considered. This must be reviewed on a regular basis in accordance with local policies.

Every time blood testing or medication is given, patients should have the procedure explained and their consent sought (as dementia can cause fluctuations in
cognition), and the procedure should be recorded (NMC, 2013).

The patient’s fluid and nutritional intake must be monitored and recorded continuously to avoid hypo-glycaemic or hyperglycaemic attacks as the patient may not be able to communicate about physical changes or effects from medications.

Underpinning this process is good communication with the patient, their family and members of the multidisciplinary team to minimise any use of covert administration of medicine or restraint.

**Person-centred care**

The prevalence of comorbidity is likely to rise. The competing and overlap of care needs of each illness must not, however, be allowed to detract from providing person-centred care and the expectations of professionalism, and policy and protocol must be adhered to at all times regardless of the capacity of the patient concerned.

The challenge for nurses is to assess and monitor the signs and symptoms of diabetes while assessing the progress of dementia, and ensuring patients’ immediate specific and individual needs are met. Planning for the future should be regularly reviewed because of the long-term nature of the conditions. NT

**References**


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