Dementia and diabetes

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Disclosures

• I have received payment for articles, presentations and involvement on advisory boards for all the major pharmaceutical companies who support diabetes
What will this session cover?

- Some facts about these two common conditions
- The issues for people who have diabetes and develop dementia
- The issues for people with dementia who develop diabetes
- Some practical tips when supporting people with both conditions
Diabetes and Dementia – Facts

• 3.7 million with diabetes (Diabetes UK 2018)

• 850,000 with dementia (Dementia UK 2017)

• The future:

• 5 million with diabetes by 2025 (Diabetes UK 2018)

• 1 million with dementia by 2025, 2 million by 2050 (Prince et al, 2014)
Dementia

- Progressive irreversible condition of the brain resulting in widespread impairment of mental function.
- Memory loss, problems with reasoning and communication, changes in personality, decreasing ability to carry out daily activities of living.
- Progression leads to restlessness, wandering, eating problems, incontinence, delusions, mobility difficulties, and increasing dependence on others (NICE 2018)
- 1 in 14 people aged >65, 1 in 6 aged > 80.
- Women > men (Alzheimers Society 2017)
Diabetes and dementia

- Type 2 diabetes: 60% increased risk for all-cause dementia (Gudala et al 2013)
- People with Alzheimers have increased risk of developing type 2 diabetes (35% vs 18%) (van de Vorst et al, 2016)
- Cognitive decline is doubled in older people with type 2 diabetes
- Type 2 is a risk factor for CVD and cerebro-vascular disease
- “Healthy heart: healthy brain” (Sabia S et al, 2019)
- Insulin resistance reducing insulin entering the brain (Cholderton et al 2016)
Issues for people with diabetes who develop dementia

- Forgetting to take medication, or forgetting they have taken it and double-dosing
- Forgetting how to use BGM meter and insulin device
- Forgetting to eat, or forgetting they have already eaten and eating again
- Inability to make decisions (e.g. Interpreting BG readings to treat hypoglycaemia or adjust insulin dose)
- Loss of so much including intimate knowledge of diabetes
Issues for people with dementia who develop diabetes

- Delayed diagnosis of diabetes if unable to recognise or communicate symptoms
- Developing incontinence with hyperglycaemia-induced polyuria if they cannot find their way to the toilet
- Increased risk of falls with increased trips to the toilet
- Increased confusion with hyperglycaemia, tiredness and dehydration
- Inability to verbalise thirst, pain
- Distress if diet is changed significantly, or they need injections and BGM and do not understand why
Safety

- Agree appropriate target levels for blood glucose and HbA1c, to avoid the risk of acute metabolic complications.
- Reduce the risk of hypoglycaemia by avoiding the use of insulin, sulphonylureas and glitinites if possible.
- Simplify medication regimens (e.g. daily long-acting basal analogue insulin that can be given by a community nurse at a time that fits in with other care providers).
- Train and support carers/partners to give insulin, or supervise the individual to give safely.
- Ensure insulin is stored in a locked box or similar if the individual is still able to self-inject under supervision but is forgetful.
- Train carers to recognise hypoglycaemia and to treat promptly and appropriately. Ensure hypo treatments are always accessible.
- Recognise problems with nutrition- e.g. swallowing, recognising cutlery.
Cognitive ability

• Recognise what the person is still able to do (e.g. use a blood glucose meter, give his or her own insulin injections after the dose has been checked) and support them to continue with this while they are still able.

• Review self-care ability regularly

• Simplify medication regimes and tablet load, preferably to once daily. Ask the pharmacist about tools to support self-medication such as blister packs and timed ‘dosset’ boxes (NICE, 2017). However, these are not helpful in people who have no awareness of time or day.
Personal history

• How long has he or she been living with diabetes?
• The individual may have long-established routines and skills which they remember clearly, even though their memory for recent events is poor.
• Familiar routines should be maintained where possible, to reduce distress and frustration.
Personality

• Changes in usual behaviour may indicate hypoglycaemia or hyperglycaemia. Symptoms of diabetes or the complications of diabetes may be ignored and assumed as personality traits. Loud aggression may be a symptom of low blood glucose for example, in people taking insulin or sulphonylureas, or a sign the person is in pain from diabetes damage to nerves.

• Being aware of and responding to preferences for certain routines or foods can improve quality of life
Environment

• Meals should be provided in a calm and distraction free environment

• Encourage a nourishing diet that provides sufficient calories to maintain ideal weight and fits the person’s usual meal pattern. Smaller portions of items in a familiar diet may be easier to achieve than completely removing items or making big changes to eating patterns

• Clinic appointments, and interventions such as daily injections should be arranged earlier in the day. Confusion may be worse later in the day when the individual is tired

• “Sundowning” (Dementia UK, 2017)
Tips for better communication (adapted from Dementia UK 2017)

- Stop what you are doing and focus on the person
- Say their name when talking to them
- Listen carefully with empathy and understanding
- Maintain appropriate eye contact
- Speak clearly and slowly, using short sentences.
- Pictures and hand gestures can be helpful in getting messages across (miming drinking a cup of water or giving an injection).
- Give the individual time to reply to questions so they do not feel rushed.
- Distractions like background noise from the television should be reduced.
- Use simple straightforward language
- Avoid using too many open questions at once
- It may be easier for them to take in information, answer questions and make decisions earlier in the day.
Diabetes and dementia: Guidance on practical management

- Signs and symptoms
- Making the diagnosis
- Diabetes medications
- Hypoglycaemia
- Support plans
- Nutrition
- Useful resources
- Competency framework
Living with Diabetes and Dementia
Useful resources

- www.trend-uk.org
- www.alzheimers.org.uk
- www.dementiauk.org

- NICE guidelines/quality standards:
  - QS1: Dementia quality standards (NICE, 2010)
  - QS30: Supporting people to live well with dementia (NICE, 2013a)
  - QS50: Mental well-being of older people in care homes
References

• Cholderton B et al (2016). Type 2 Diabetes, Cognition, and Dementia in Older Adults: Towards a Precision Health Approach. Diabetes Spectrum; 29 (4): 210-219

• Dementia UK (2017) available @ https://www.dementiauk.org/understanding-dementia/advice-and-information/changes-in-behaviour/sundowning/


• NICE (2017) Managing medicines for adults receiving social care in the community available @ https://www.nice.org.uk/guidance/ng67

• NICE (2018) Dementia: assessment, management and support for people living with dementia and their carers. NG97 available @ https://www.nice.org.uk/guidance/ng97


