This is the published version:


Available from Deakin Research Online:

http://hdl.handle.net/10536/DRO/DU:30009090

Reproduced with the kind permission of the copyright owner

Copyright: 2006, Health Issues Centre
MANAGING OLDER PEOPLE WITH DIABETES:
can age-specific guidelines help health professionals plan proactive individualised care?

Globally more than 18% of people aged 60–75 have diabetes, which represents 35% of diabetes in adults (IDF 2013). The prevalence in older Australians is 16.8%, and a further 16.8% are at high risk of diabetes and will most likely present with one or more diabetes-related complications. Symptoms are often atypical, thus the diagnosis can be missed or attributed to other causes including ‘old age’. Significantly, diabetes is a leading cause of death in older people. Importantly, ‘older people’ are highly individual and cannot be defined by age, although age 65 is increasingly accepted as ‘old’, hence, the findings of well-designed research cannot always be generalised to older individuals.

DIABETES IN OLDER PEOPLE
Diabetes is metabolically different in older people from younger people. For example, fasting plasma glucose may not be increased in older people with type 2 diabetes (Amer et al. 1991; Menielly & Elliott 1999). In addition, overweight and lean older people are different. Overweight older people are usually insulin resistant but have relatively normal insulin secretion. In contrast, insulin action is relatively normal in lean older people but insulin secretion can be impaired (Menielly 2011). Consequently, overweight older people might benefit from insulin sensitising medicines such as Metformin, whereas most lean older people need insulin soon after diagnosis.

Renal glucose threshold increases with age and glycosuria might not occur until the blood glucose is very high. Likewise, older people often do not feel thirsty and can be at risk of fluid and electrolyte deficits if they become dehydrated and/or hyperglycaemic. Therefore, it is important that health professionals screen older people for diabetes, for example during annual health checks, hospital admissions or when the individual presents with an infection, or wounds do not heal.

DIABETES COMPLICATIONS AND OTHER COMORBIDITIES
Persistent hyperglycaemia and longer duration of diabetes are associated with diabetes complications (Menielly 2011), which, with other concomitant comorbidities lead to physical, cognitive, sensory and functional decline, which affect self-care, independence, life expectancy and quality of life (Kirkman et al. 2012). Significantly, vascular dementia, Alzheimer’s disease and diabetes are inter-related (Toljpanen et al. 2013). Severe hyperglycaemia is associated with dementia in type 2 diabetes (Yaffe et al. 2013; Whitmer 2009), and depression is common in older people with diabetes (Cahoon 2012).

Geriatric syndromes and delirium are more common in older people with diabetes. Delirium has multiple causative factors including medicines such as hypnotics, sedatives, narcotics and anticholinergic agents (Inouye 2003), cardiovascular and renal disease, infections, hypoglycaemia, and hypoglycaemia. The latter is associated with electrolyte changes ketoacidosis and hyperosmolar states.

KEY CARE PRINCIPLES
Very little category one evidence exists to support most diabetes care recommendations for older people with diabetes because they are often excluded from studies. Best practice care must be holistic, person-centred, and, ideally, planned with the individual and/or their family carers.

Maintaining independence, functional status and quality of life by reducing the symptom and medicine burden is important. Consequently, proactive risk screening and pharmacovigilance are essential (Sinclair et al. 2012; Dunning et al. 2013; NPS 2013).

Many commonly prescribed medicines
such as antipsychotic medicines, long acting sulphonylurea, and sliding insulin scales should be avoided or used with caution in older people (AGS Beers Criteria 2012). Regular blood glucose monitoring is essential, especially when older people with diabetes are prescribed glucose lowering medicines, to identify hypo and hyperglycaemia and guide decisions about medicine doses and dose intervals, diet and activity.

A comprehensive care plan should include:
- Proactive assessment to identify risks such as nutritional deficiencies, increasing frailty, hypo and hyperglycaemia. All of these factors are associated with increased risk of pain, falls, geriatric syndromes, delirium, and depression and compromise functional status, which affects driving ability, self-care and medicine self-management.
- Considering risk/benefit, functional status and life expectancy when planning care and prescribing medicines initially and when changing the care plan/medicine regimen.
- Setting individualised goals and targets according to health and functional status. For example, HbA1c 7–7.5% (53–88 mmol/ mol) could be appropriate for a functionality independent, relatively healthy older person but unsafe for a frail older person and people with dementia where HbA1c up to 8.5% (69 mmol/mol) might be safer. Generally, blood glucose range between 6–15 mmol/L should avoid hypoglycaemia and significant hyperglycaemia.
- Regularly reassessing the individual and their care plan; during annual health and diabetes complication assessments and when health status or treatment changes.
- Proactively discussing plans to stop driving including motorised wheelchairs and farm equipment, moving to supported accommodation and for end of life care.
- Managing cardiovascular risk as safely and effectively as possible using a healthy diet, regular activity, lipid lowering agents, aspirin and antihypertensive agents. The latter should be carefully titrated to avoid postural hypotension and the attendant falls risk.
- Managing hyperglycaemia, to promote comfort, prevent dehydration and the associated risk of ketoacidosis, hyperosmolar states, falls, pain, delirium and depression.
- Developing an appropriate plan to manage intercurrent illnesses (sick days) that suits the individual and revise the plan when the person’s self-care capability declines.
- Incorporating general health checks such as mammograms, pap smears, prostate checks and immunisation into the care plan.
- Providing support and education for family carers and involving them in care decisions where possible.

Caring for older people with diabetes is challenging. Hyper and hypoglycaemia symptoms often go unrecognised. Physical, sensory and cognitive changes are common, and influence self-care safety. Proactive medicine management and pharmacovigilance is essential. Care must be individualised and communicated among health professionals. Guidelines can facilitate best practice care.

Shah, S. 2014, ‘Socioeconomic and price-sensitive patients: An interprofessional approach.’

CONSENSUS GUIDELINES THAT CAN BE USED TO PLAN CARE FOR OLDER PEOPLE WITH DIABETES

Guidelines for Managing Older People with Diabetes in Residential and Other Care Settings
Guidelines for Managing Older People with Type 2 Diabetes

Diabetes Mellitus in Older People
Sindelar et al. 2012
Position statement on behalf of the International Association of Gerontology and Geriatrics, the European Diabetes Working Party for Older People and the International Task Force of Experts in Diabetes