



The easy-to-do audit series

Glycaemic control in older people with type 2 diabetes



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Undertaking simple audits and reflecting and acting on our findings can be a powerful way to change practice and improve the care we deliver. In this series, Dr Sam Seidu introduces simple, easy-to-run audits. The following audit is on glycaemic targets for older people with type 2 diabetes. The PCDS hopes these hands-on “how to” audit guides will provide the practical guidance and motivation we all need to take action in the limited time available.

People over the age of 70 with diabetes experience excess morbidity and mortality compared with individuals of the same age without the condition (Bethel et al, 2007). Older people with diabetes have a similar risk of developing micro- and macrovascular complications as their younger counterparts with diabetes; however, their absolute risk for cardiovascular disease is much higher. Cognitive impairment, functional disabilities, frailty, polypharmacy, depression, urinary incontinence and persistent pain (Kirkman et al, 2012) can all contribute to the increased risk of further complications in older people with diabetes.

Various national and international guidelines suggest the relaxation of glycaemic targets for people over the age of 70 with diabetes (Sinclair et al, 2011; Kirkman et al, 2012; Dunning et al, 2014). However, older people with diabetes are not a homogeneous population; there are individuals who are functionally independent and residing in the community, as well as those who are functionally dependent with many comorbidities and living in assisted care facilities or nursing homes. In older people with diabetes

who are frail, hypoglycaemia, hypotension and drug interactions due to polypharmacy are of great concern (Ligthelm et al, 2012). There are individualised targets for cardiovascular risk, depending on the level of dependence, and this is the same for glycaemic control. Increasing glycaemic targets for people over 70 may reduce further complications:

- For older people who are functionally independent, the usual HbA_{1c} target is 53–59 mmol/mol (7–7.5%).
- For older people who are functionally dependent, an HbA_{1c} target of 53–64 mmol/mol (7.0–8.0%) is advised.
- For people with dementia and those who are frail, an HbA_{1c} target up to 70 mmol/mol (8.5%) may be appropriate (Dunning et al, 2014).

When deciding whether it is appropriate to reduce the proportion of older individuals with an HbA_{1c} below 53 mmol/mol (7%) within your practice, you may find the following interventions useful to consider.

- **For functionally dependent older people**
 - When prescribing an oral glucose-lowering agent, choose one with a low potential for hypoglycaemia.
 - Use simplified insulin regimens with a low hypoglycaemic risk.
 - Avoid complex regimens and a high treatment burden to reduce the risk of medication errors.
- **For people who are frail**
 - Avoid or discontinue agents that might cause nausea or gastrointestinal disturbance or excess

weight loss (e.g. metformin or a glucagon-like peptide-1 receptor agonist respectively).

● For those with dementia

- Consider educating caregivers and family members to recognise the subtle indicators of hypoglycaemia. ■

Bethel MA, Sloan FA, Belsky D, Feinglos MN (2007) Longitudinal incidence and prevalence of adverse outcomes of diabetes mellitus in elderly patients. *Arch Intern Med* **167**: 921–7

Dunning T, Sinclair A, Colagiuri S (2014) New IDF guideline for managing type 2 diabetes in older people. *Diabetes Res Clin Pract* **103**: 538–40

Kirkman SM, Briscoe VJ, Clark N et al (2012) Diabetes in older adults: A consensus report. *J Am Geriatr Soc* **60**: 2342–56

Ligthelm RJ, Kaiser M, Vora J, Yale J (2012) Insulin use in elderly adults: Risk of hypoglycemia and strategies for care. *J Am Geriatr Soc* **60**: 1564–70

Sinclair AJ, Paolisso G, Castro M et al (2011) European diabetes working party for older people 2011 clinical guidelines for type 2 diabetes mellitus. Executive summary. *Diabetes Metab* **37**: S27–38

Your turn:

The instructions alongside explain how to complete the audit. You can download the full-size audit form at www.diabetesandprimarycare.co.uk/audits to fill in and retain. The audit should take no more than a few hours to complete.

After you have completed the first data collection, you can send in your top-line aggregated data to dpc@sbcommunicationsgroup.com.

Instructions to complete the audit.

Aim

The aim of the audit is to review the glycaemic targets of older people with type 2 diabetes.

Audit method

This will be a two-step completed audit to be carried out in primary care centres in the UK. The first data collection will be done between 1st May and 30th June 2016, and a follow-up data collection will be completed 6 months later to allow for appropriate interventions at the local or practice level to be put in place and take effect.

Criterion

People who are 70 years of age or above with type 2 diabetes must not have an HbA_{1c} less than 53 mmol/mol (7%).

Standard

A 90% target is to be considered to allow for non-attendance, death, relocation of patients and difficult-to-reach patient groups.

N.B. Set a reminder on the practice’s electronic calendar to repeat the audit 6 months later.

An audit of glycaemic control in older people with type 2 diabetes



Date of first data collection: _././_

Date of second data collection (6 months later): _././_

Criterion

1. People who are 70 years of age or above with type 2 diabetes must not have an HbA_{1c} less than 53 mmol/mol (7%).

Criterion	First data collection			Second data collection			Standard
	Total number of people over 70 years of age with type 2 diabetes	Date one achievement Number of people who do not have an HbA _{1c} less than 53 mmol/mol (7%)	Percentage	Total number of people over 70 years of age with type 2 diabetes	Date two achievement Number of people who do not have an HbA _{1c} less than 53 mmol/mol (7%)	Percentage	
e.g. 1	120	90	75%	184	102	55%	90%
1							90%

Useful interventions to consider for implementation after the first data collection.

- **For functionally dependent older people**
 - When prescribing an oral glucose-lowering agent, choose one with a low potential for hypoglycaemia.
 - Use simplified insulin regimens with a low hypoglycaemic risk.
 - Avoid complex regimens and a high treatment burden to reduce the risk of medication errors.
- **For people who are frail**
 - Avoid or discontinue agents that might cause nausea or gastrointestinal disturbance or excess weight loss (e.g. metformin or a glucagon-like peptide-1 receptor agonist respectively).
- **For those with dementia**
 - Consider educating caregivers and/or family to recognise the subtle indicators of hypoglycaemia.

1. What changes will be implemented after the first data collection?
2. What are the conclusions and lessons learned following the second data collection?
3. Are any further steps required for change, such as repeating the audit next year?

Download the full-size audit form at www.diabetesandprimarycare.co.uk/audits

An audit of glycaemic control in older people with type 2 diabetes

Date of first data collection: __/__/__

Date of second data collection (6 months later): __/__/__

Criterion

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<i>e.g. 1</i>	<i>120</i>	<i>90</i>	<i>75%</i>	<i>124</i>	<i>102</i>	<i>82%</i>	<i>90%</i>
1							90%

Useful interventions to consider for implementation after the first data collection.

● For functionally dependent older people

- When prescribing an oral glucose-lowering agent, choose one with a low potential for hypoglycaemia.
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- Avoid or discontinue agents that might cause nausea or gastrointestinal disturbance or excess weight loss (e.g. metformin or a glucagon-like peptide-1 receptor agonist respectively).

● For those with dementia

- Consider educating caregivers and/or family to recognise the subtle indicators of hypoglycaemia.

1. What change(s) will be implemented after the first data collection?

2. What are the conclusions and lessons learned following the second data collection?

3. Are any further steps required for change, such as repeating the audit next year?