Guide to Deprescribing in Adults with Type 2 Diabetes (T2DM)

NICE recommendations on choosing medicines for adults with T2DM recommends that the patient's needs and circumstances are reassessed at each review, and to consider:

- Stopping medicines that are not tolerated
- Stopping medicines that have had no impact on glycaemic control or weight, unless there is an additional clinical benefit, such as cardiovascular or renal protection, from continued treatment
- Optimising current treatment regimen before thinking about changing treatments, taking into account factors such as, adverse effects, adherence to existing medicines, the need to revisit advice about diet/lifestyle, prescribed doses and formulations
- Switching rather than adding drugs when intensifying treatment.

Deprescribing in T2DM can improve patient safety and quality of care by reducing overtreatment, treatment burden and risk of harm. This guidance has been developed to support clinicians to deprescribe glucose-lowering therapies and sundries in a safe and patient-centred manner.

Note: Deprescribing of insulin in T2DM is excluded from this guidance. Any changes to insulin therapy being managed by specialist services should occur under specialist supervision.

Examples of when to consider deprescribing non-insulin glucose lowering medicines and diabetes sundries can be found in Table 1 and Table 2, respectively.

Deprescribing process

- Deprescribing of glucose-lowering medicines should be undertaken following shared decision-making with the person and/or their carer. A plan should be developed and agreed which details the approach to deprescribing, monitoring required and target blood glucose / HbA1c levels.
- Following deprescribing, the patient's HbA1c should be checked after 3 months to assess impact on glycaemic control. For deprescribing of sulfonylureas, increased frequency blood glucose monitoring is also required (see table on page 2 for further information on monitoring).
- If, as a result of deprescribing, the patient experiences symptomatic hyperglycaemia (e.g. thirst, dehydration, falls, fatigue, frequent urination) or blood glucose levels / HbA1c rise above the individual's target, review and optimise current treatment regimen before considering reverting back to the previous drug/dose or initiating a new glucose lowering medicine.
- At each stage, diet and lifestyle measures should be optimised where appropriate.

Frailty and T2DM

- Older people, particularly those with frailty and/or comorbidities are less likely to benefit from the long-term protective effects of good glycaemic control and are often at risk of inappropriate polypharmacy due to co-morbidities.
- All older people with T2DM should have an appropriate individualised HbA1c target taking into account functional status, cognitive ability, comorbidities including renal function and duration of diabetes.
- Optimal HbA1c in older people should be reviewed annually, or more frequently if there is a change in functional status or the development of new comorbidities which increase the risk of hypoglycaemia.
- In people living with frailty and T2DM, consider deprescribing glucose lowering medicines if:
  - The patient is at risk of, or is experiencing hypoglycaemia, or other adverse drug events **or**
  - HbA1c is < 53 mmol/mol (7%) or lower than their individualised target **or**
  - There is unclear benefit from therapy continuation (e.g. short life expectancy, significant comorbidities)
- Prioritise reduction/cessation of medications which have a high risk of hypoglycaemia (e.g. sulfonylureas).
- Consider comorbidities prior to ceasing medications with secondary therapeutic benefits (e.g. SGLT-2 inhibitors, GLP-1 receptor agonists).

Table 1: Deprescribing glucose-lowering medicines and monitoring requirements.

Drug or drug class	Hypo risk	Monitoring	Examples of when to consider deprescribing
Metformin	Low	• Monitor signs of hyperglycaemia • Check HbA1c in 3 months	• Adverse effects/tolerability • Non-adherence • If appropriate, where HbA1c falls below individualised target • End of life • New onset of clinical conditions that lead to contraindications (acute unstable chronic heart failure or renal impairment [eGFR < 30 mL/minute/1.73 m^2])*
Sulfonylurea	High	• Monitor fasting and pre-evening-meal blood glucose levels • Check HbA1c in 3 months	• Adverse effects/tolerability • If appropriate, where HbA1c falls below individualised target • Hypoglycaemia or risk of hypoglycaemia • Non-adherence • No longer needed for rescue therapy or steroid-induced hyperglycaemia • Treatment failure • Frailty • End of life • Low cognitive function • New onset of clinical conditions that lead to contraindications (e.g. severe renal or hepatic impairment)*
Pioglitazone	Low	• Monitor signs of hyperglycaemia • Check HbA1c in 3 months	• Treatment failure • Adverse effects/tolerability • If appropriate, where HbA1c falls below individualised target • Frailty • End of life • New onset of clinical conditions that lead to contraindications (e.g. uninvestigated macroscopic haematuria)*
SGLT-2 inhibitors	Low	• Monitor signs of hyperglycaemia • Check HbA1c in 3 months	• Adverse effects/tolerability • Non-adherence • New onset of clinical conditions that lead to contraindications (e.g. diabetic ketoacidosis)* • Frailty • End of life
DPP-4 inhibitors	Low	• Monitor signs of hyperglycaemia • Check HbA1c in 3 months	• Treatment failure • Adverse effects/tolerability • If appropriate, where HbA1c falls below individualised target • Combination treatment with GLP-1 receptor agonists (no added clinical benefit) • New onset of clinical conditions that lead to contraindications (e.g. pancreatitis)* • Frailty • End of life
GLP-1 RA and Combination GIP/GLP-1 RA	Low	• Monitor signs of hyperglycaemia • Check HbA1c in 3 months	• Adverse effects/tolerability • Non-adherence • Inadequate metabolic response – GLP-1 RAs should only be continued where there is a reduction of at least 11 mmol/mol [1.0%] in HbA1c and weight loss of at least 3% of initial body weight in 6 months) • Frailty • End of life • New onset of clinical conditions that lead to contraindications (e.g. pancreatitis)*

*Refer to the summary of product characteristics for a full list of contraindications

Table 2: Deprescribing diabetes sundries

Diabetes sundry	Examples of when to consider deprescribing
Blood glucose test strips and lancets	• T2DM controlled by diet and lifestyle alone or by any of the following oral agents (alone or in combination with one another): Metformin, DPP-4 inhibitor, SGLT-2 inhibitor, GLP-1 receptor agonist, pioglitazone, acarbose. • Where blood glucose monitoring was recommended for short-term use and continued monitoring is no longer required. • Reduced blood glucose monitoring frequency due to changes to treatment regimen or lifestyle. For further information, please refer to the HWE ICB guidance for Self-monitoring of Blood Glucose (SMBG) in patients with Diabetes Mellitus
Safety needles and safety lancets	• Where prescribed for use by healthcare professionals and employees. It is the healthcare employer's responsibility to provide safety needles / safety lancets. • Patient is competent to self-administer insulin / GLP-1 receptor agonist. • Patient is competent to self-monitor blood glucose levels. For further information, please refer to the HWE ICB recommendations for: • Needles for pre-filled / reusable insulin or GLP-1 receptor agonist pens • Blood glucose and ketone meters, testing strips and lancets in adults

References

1) NICE Guideline (NG28): Type 2 diabetes in adults: management https://www.nice.org.uk/guidance/ng28
2) Ali S. At a glance factsheet: Deprescribing in type 2 diabetes. Diabetes & Primary Care 25. Available at: https://diabetesonthenet.com/diabetes-primary-care/factsheet-deprescribing/
3) Sinclair, A. and Gallagher, A. Managing frailty and associated comorbidities in older adults with diabetes: Position Statement on behalf of the Association of British Clinical Diabetologists (ABCD). Available at: https://abcd.care/sites/default/files/site_uploads/Resources/Position-Papers/ABCD-Position-Paper-Frailty.pdf
4) Mearns S. A guide to deprescribing antihyperglycaemics. Primary Health Tasmania. Available at: https://www.primaryhealthtas.com.au/wp-content/uploads/2023/03/A-guide-to-deprescribing-antihyperglycaemics.pdf

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