Welcome!

NICE NG28 guideline update: type 2 diabetes

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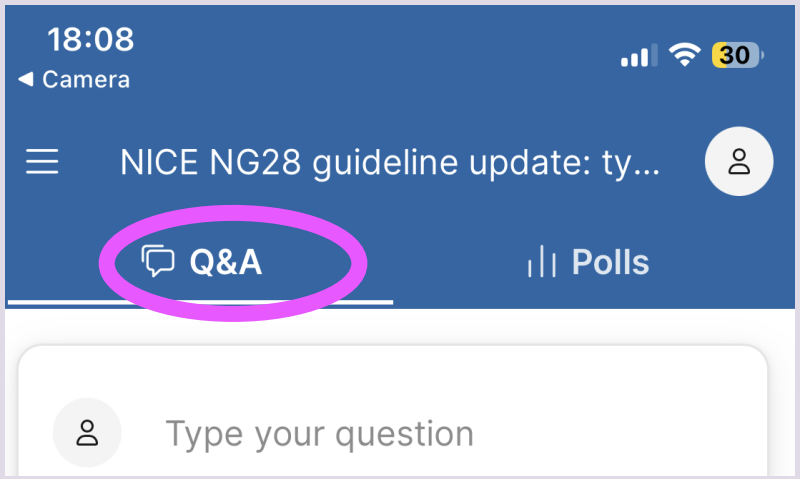

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NICE NG28 guideline update: type 2 diabetes

Dr John Patterson
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Dr Waqaar Shah
Clinical Director – NHS London/South West London ICS/ Wandsworth Place

NICE National Institute for Health and Care Excellence

About NICE

NICE helps practitioners and commissioners get the best care to people, fast, while ensuring value for the taxpayer.

We do this by:

Producing useful and usable guidance for health and care practitioners.

Focusing on what matters most by prioritising topics that are most important to the health and care system or address an unmet need.

Providing rigorous, independent assessment of complex evidence for new health technologies.

Encouraging the uptake of best practice to improve outcomes for everyone.

Implementing NICE guidance helps to.....

- **Improve health and wellbeing** outcomes for service users and carers
- Ensure that care provided is **effective** and makes **efficient** use of resources
- **Inform policy** at national level
- **Reduce inequalities** and unwarranted variation
- Supports **quality improvement** activities
- Address adverse **incidents** (action plans)
- Demonstrates **quality** especially to patients and their families
- Answer questions on quality from **health regulators**
- Support **professional decision-making** and continuous development
- Support the case for **investment** (value for money)

Why has NICE updated type 2 diabetes guideline?

‘There is a significant body of evidence showing that type 2 diabetes management should aim at holistic health improvements (in particular, cardiovascular and renal protection), rather than just HbA1c targets’

Several rationales in the guideline

- The guideline focusses on managing diabetes in the context of the co-morbidities common in people with type 2 diabetes
- The guideline does not replace other NICE guidance on treating those comorbidities

Meet the panel

Dr Waqaar Shah
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Dr John Patterson
Associate Medical Director – NHS Greater Manchester/ GP, Hope Citadel/ Consultant GP Clinical Advisor, NICE

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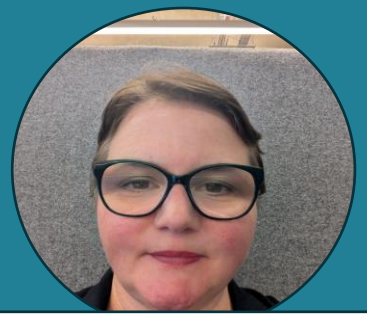

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NICE guideline NG28

Type 2 diabetes in adults

Medicines update

Guideline published February 2026

NICE National Institute for Health and Care Excellence

Overview of the guideline update – what's changed?

- Update focusses on the pharmacological management of type 2 diabetes
- Other components of the guideline are almost entirely unchanged, but section numbering has been revised. Note:
    - Section 1.1 - the importance of individualised care
    - Section 1.5 - blood glucose measurement and targets, including agreeing an individual HbA1c target

Other NICE guidance for comorbidities

- Acute coronary syndromes NG185
- Cardiovascular disease: risk assessment and reduction, including lipid modification NG238
- Chronic heart failure NG106
- Chronic kidney disease NG203
- Diabetic retinopathy NG242
- Hypertension NG136
- Overweight and obesity NG246
- Peripheral arterial disease CG147
- Stable angina CG126

Context for the guideline

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Individualised care (1)

Recommendation 1.1.1

Adopt an individualised approach to diabetes care that is tailored to the person's needs and circumstances

Take into account their:

- personal preferences
- comorbidities
- risks from polypharmacy
- likelihood of benefiting from long-term interventions

Such an approach is especially important in the context of multimorbidity

Individualised care (2)

Recommendations 1.1.2 and 1.1.3

Reassess the person's needs and circumstances at each review

Think about whether to stop any medicines that are not effective

Take into account any disabilities, including visual impairment, when planning and delivering care

- For discussions about overweight and obesity, see the overweight and obesity guideline NG245 (2026)
- For guidance on care for people with diabetes and an eating disorder, see the eating disorders guideline NG69 (2020)

Blood glucose targets (1)

Recommendations 1.5.5, 1.5.9

Discuss and agree an individual HbA1c target with the person

- Encourage them to reach their target and maintain it, unless any resulting adverse effects or their efforts to achieve their target impair their quality of life
- Think about using the NICE patient decision aid on weighing up HbA1c targets to support these discussions

Consider relaxing the target HbA1c on a case-by-case basis, particularly if the person is older or frailer, if:

- They are unlikely to achieve longer-term risk-reduction benefits, for example, if they have reduced life expectancy
- Tight blood glucose control would put them at high risk if they developed hypoglycaemia
- Intensive management would not be appropriate, for example, if they have significant comorbidities

Blood glucose targets (2)

Recommendations 1.5.7 and 1.5.8

- Initially support the person to aim for HbA1c of 48 mmol/mol (6.5%)
    - If on a medicine associated with hypoglycaemia, support them to aim for an HbA1c level of 53 mmol/mol (7.0%)
- If HbA1c levels are not adequately controlled by the initial medication regimen and rise to 58 mmol/mol (7.5%) or higher
    - reinforce advice about diet, healthy living and adherence to medicines and
    - support the person to aim for an HbA1c level of 53 mmol/mol (7.0%) and
    - intensify medicines

Guideline update recommendations on medicines

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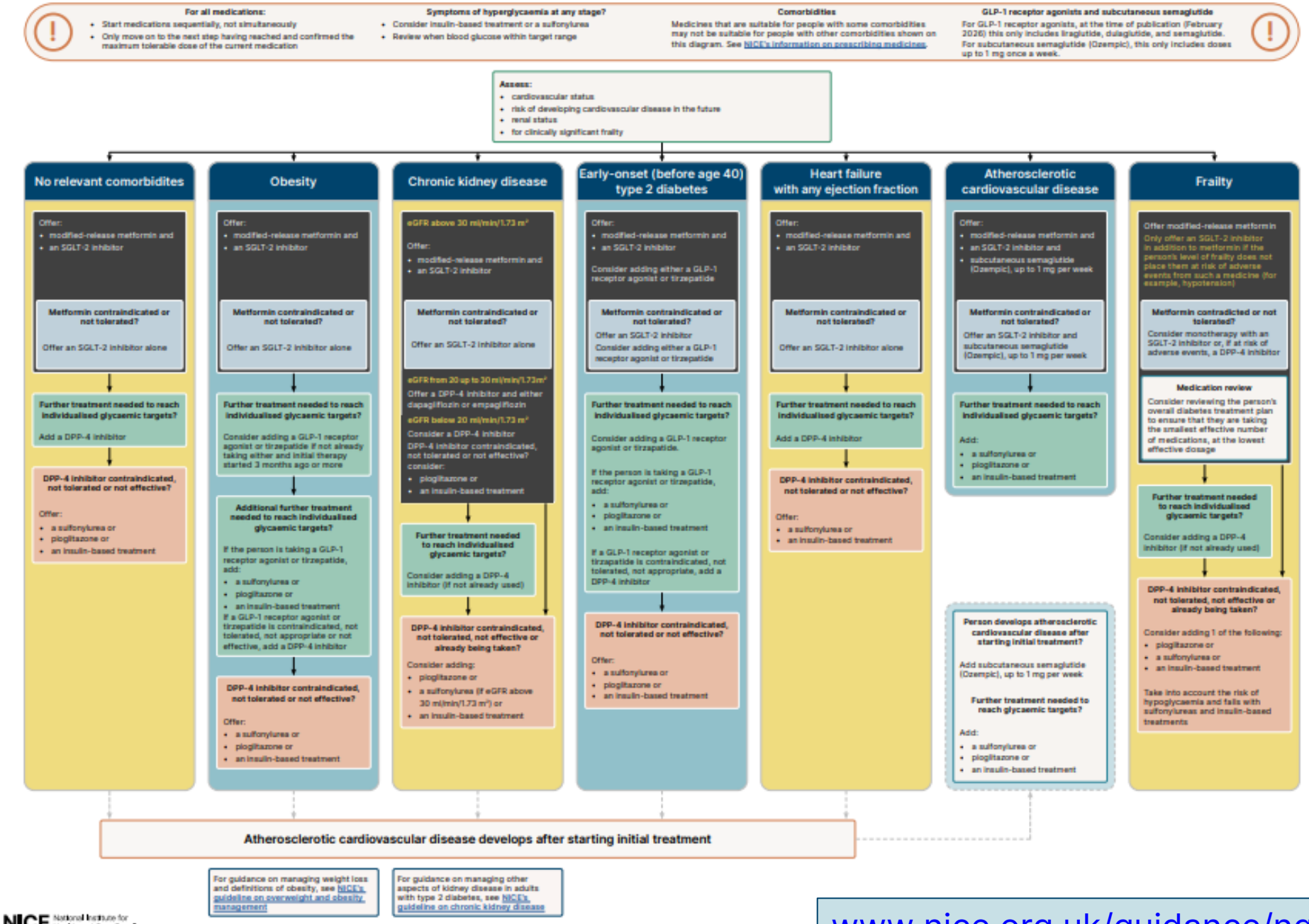
Type 2 diabetes in adults: choosing medicines for first line and further treatment



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www.nice.org.uk/guidance/ng28/resources

Type 2 diabetes in adults: summary of medicines recommendations

General points for use

- Unless otherwise stated, recommendations apply to any member of a class of drugs. For GLP-1 receptor agonists, at the time of publication (February 2026) this only includes liraglutide, dulaglutide, and semaglutide. For subcutaneous semaglutide (Ozempic), this only includes doses up to 1 mg once a week. When more than 1 medicine from the same drug class are equally suitable for the person, use the least expensive. In the table, 'not suitable' means contraindicated or not tolerated.
- For people with more than 1 comorbidity (for example, atherosclerotic cardiovascular disease and heart failure), compare the rows to reach a decision with and for the person. See the guideline for prescribing for people with eGFR below 30 ml/min/1.73 m² or with frailty. See summaries of product characteristics, the BNF and MHRA drug safety updates (DSUs) for contraindications, warnings, safety recommendations and any monitoring requirements for medicines.
- Do not offer both a GLP-1 receptor agonist or tirzepatide and a DPP-4 inhibitor together to treat type 2 diabetes.
- Consider continuing SGLT-2 inhibitors for their cardiovascular or renal benefits, even if they do not help the person reach their individualised glycaemic targets.
- Stop GLP-1 receptor agonists or tirzepatide if the person becomes underweight (BMI under 18.5 kg/m²) or if they do not help the person reach their individualised glycaemic targets and they are not being taken for their cardiovascular benefits.

	Modified release metformin	SGLT-2 inhibitor	GLP-1 receptor agonist	Tirzepatide	DPP-4 inhibitor	Sulfonylurea	Pioglitazone	Insulin
Type 2 diabetes and no relevant comorbidity	**Offer as initial treatment** with an SGLT-2 inhibitor	**Offer as initial treatment** with metformin, or as monotherapy if metformin is not suitable	**No recommendation**	**No recommendation**	**Offer to add to initial treatment** if the person needs further medicines to reach their glycaemic target	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to pioglitazone or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to sulfonylurea or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to sulfonylurea or pioglitazone)
Type 2 diabetes and heart failure	**Offer as initial treatment** with an SGLT-2 inhibitor	**Offer as initial treatment** with metformin, or as monotherapy if metformin is not suitable	**No recommendation:** see recommendations for other comorbidities if relevant	**No recommendation:** see recommendations for other comorbidities if relevant	**Offer to add to initial treatment** if the person needs further medicines to reach their glycaemic target	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to insulin)	**Contraindicated**	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to sulfonylurea)
Type 2 diabetes and atherosclerotic cardiovascular disease (ASCVD) ASCVD at diagnosis or if the person develops it after starting initial treatment	**Offer as initial treatment** with an SGLT-2 inhibitor and semaglutide (GLP-1 receptor agonist)	**Offer as initial treatment** with metformin and semaglutide (GLP-1 receptor agonist), or with semaglutide if metformin is not suitable	**Offer as initial treatment** subcutaneous semaglutide (Ozempic) up to 1 mg once a week with metformin and an SGLT-2 inhibitor, or with an SGLT-2 inhibitor if metformin is not suitable	**No recommendation**	**No recommendation**	**Offer to add to initial treatment** if the person needs further medicines to reach their glycaemic target (alternative to pioglitazone or insulin)	**Offer to add to initial treatment** if the person needs further medicines to reach their glycaemic target (alternative to sulfonylurea or insulin)	**Offer to add to initial treatment** if the person needs further medicines to reach their glycaemic target (alternative to sulfonylurea or pioglitazone)

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Type 2 diabetes: summary of medicines recommendations

	Modified release metformin	SGLT-2 inhibitor	GLP-1 receptor agonist	Tirzepatide	DPP-4 inhibitor	Sulfonylurea	Pioglitazone	Insulin
Early onset type 2 diabetes	**Offer as initial treatment** with SGLT-2 inhibitor	**Offer as initial treatment** with metformin, or as monotherapy if metformin is not suitable	**Consider, as initial treatment,** with metformin and an SGLT-2 inhibitor (for its cardiovascular, renal and glycaemic benefits) or with an SGLT-2 inhibitor alone if metformin is not suitable (alternative to tirzepatide)	**Consider, as initial treatment,** with metformin and an SGLT-2 inhibitor (for its glycaemic benefits) or with an SGLT-2 inhibitor alone if metformin is not suitable (alternative to GLP-1 receptor agonist)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist or tirzepatide are not suitable	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist, tirzepatide or a DPP-4 inhibitor are not suitable or not effective (alternative to pioglitazone or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist, tirzepatide or a DPP-4 inhibitor are not suitable or not effective (alternative to sulfonylurea or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist, tirzepatide or a DPP-4 inhibitor are not suitable or not effective (alternative to sulfonylurea or pioglitazone)
			Consider adding to initial treatment if the person needs further medicines to reach their glycaemic target (alternative to tirzepatide)	**Consider adding to initial treatment** if the person needs further medicines to reach their glycaemic target (alternative to GLP-1 receptor agonist)		**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • they are already taking a GLP-1 receptor agonist or tirzepatide (alternative to pioglitazone or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • they are already taking a GLP-1 receptor agonist or tirzepatide (alternative to sulfonylurea or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • they are already taking a GLP-1 receptor agonist or tirzepatide (alternative to sulfonylurea or pioglitazone)
Type 2 diabetes and obesity	**Offer as initial treatment** with SGLT-2 inhibitor	**Offer as initial treatment** with metformin, or as monotherapy if metformin is not suitable	**Consider adding to initial treatment** if • the person has been taking this for at least 3 months and • they need further medicines to reach their glycaemic target (alternative to tirzepatide)	**Consider adding to initial treatment** if • the person has been taking this for at least 3 months and • they need further medicines to reach their glycaemic target (alternative to GLP-1 receptor agonist)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist or tirzepatide are not suitable or not effective	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist, tirzepatide or a DPP-4 inhibitor are not suitable or not effective (alternative to pioglitazone or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist, tirzepatide or a DPP-4 inhibitor are not suitable or not effective (alternative to sulfonylurea or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a GLP-1 receptor agonist, tirzepatide or a DPP-4 inhibitor are not suitable or not effective (alternative to sulfonylurea or pioglitazone)
						Offer to add to initial treatment if: • the person needs further medicines to reach their glycaemic target and • they are already taking a GLP-1 receptor agonist or tirzepatide (alternative to pioglitazone or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • they are already taking a GLP-1 receptor agonist or tirzepatide (alternative to sulfonylurea or insulin)	**Offer to add to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • they are already taking a GLP-1 receptor agonist or tirzepatide (alternative to sulfonylurea or pioglitazone)

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Type 2 diabetes in adults: summary of medicines recommendations

	Modified release metformin	SGLT-2 inhibitor	GLP-1 receptor agonist	Tirzepatide	DPP-4 inhibitor	Sulfonylurea	Pioglitazone	Insulin
Type 2 diabetes and chronic kidney disease (CKD) eGFR above 30 ml/min/1.73 m²	**Offer as initial treatment** with an SGLT-2 inhibitor	**Offer as initial treatment** with metformin, or as monotherapy if metformin is not suitable	**No recommendation:** see recommendations for other comorbidities if relevant	**No recommendation:** see recommendations for other comorbidities if relevant	**Consider adding to initial treatment** if the person needs further medicines to reach their glycaemic target	**Consider adding to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to pioglitazone or insulin)	**Consider adding to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to sulfonylurea or insulin)	**Consider adding to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • a DPP-4 inhibitor is not suitable or not effective (alternative to sulfonylurea or pioglitazone)
						Consider adding to initial treatment if: • the person needs further medicines to reach their glycaemic target and • they are already taking a DPP-4 inhibitor (alternative to pioglitazone or insulin)	**Consider adding to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • they are already taking a DPP-4 inhibitor (alternative to sulfonylurea or insulin)	**Consider adding to initial treatment** if: • the person needs further medicines to reach their glycaemic target and • they are already taking a DPP-4 inhibitor (alternative to sulfonylurea or pioglitazone)

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 ISBN 978-1-4731-9389-5.

What's changed from 2022, and what hasn't? (1)

- Metformin is still a core treatment, but modified-release tablet now preferred
- SGLT-2 inhibitors
    - Was 'offer' with metformin for people with type 2 diabetes and either heart failure or ASCVD; 'consider' if at high risk of CVD
    - Was 'consider' as dual or triple therapy for glycaemic control
    - Now 'offer' for all people with metformin or as monotherapy if metformin contraindicated (note recommendations for people with very low eGFR or frailty)
- DPP-4 inhibitors, pioglitazone or sulfonylurea
    - Was 'consider' as additional treatment for glycaemic control, now 'offer' as add-on second or third line therapy (see guideline)

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What's changed from 2022, and what hasn't? (2)

- GLP-1 receptor agonists
  - At the time of publication (February 2026) this only includes liraglutide, dulaglutide, and semaglutide. For subcutaneous semaglutide (Ozempic), this only includes doses up to 1 mg once a week
  - Was 'consider' in triple therapy if triple therapy with metformin and 2 other drugs not effective, not tolerated or contraindicated, with additional requirements. Now:
    - ASCVD: offer (semaglutide [Ozempic] up to 1 mg/week) with metformin and an SGLT-2 inhibitor first line
    - Early-onset diabetes: consider (GLP-1 receptor agonist or tirzepatide) with metformin and an SGLT-2 inhibitor first line, or as add-on if needed for glycaemic control
    - Obesity: consider as add-on if needed for glycaemic control

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Ted’s journey

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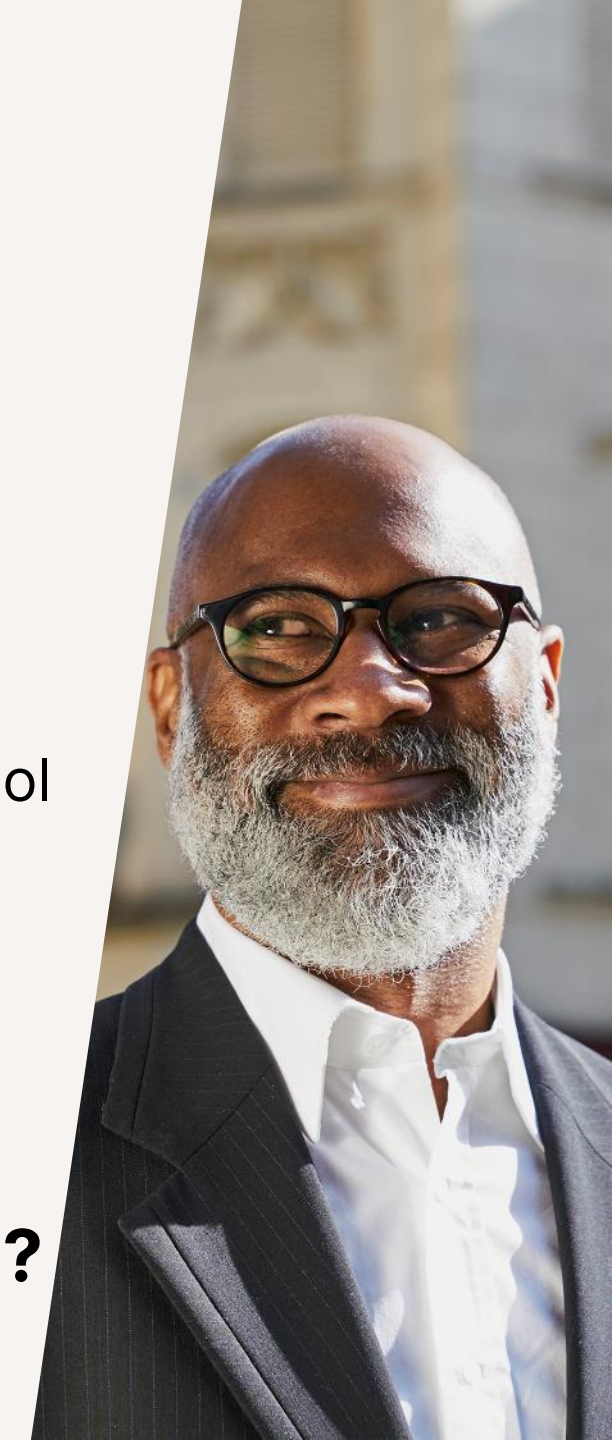
Ted's journey (1)

- Ted is of Black Caribbean ethnic background and has never smoked. He worked as a bus driver
- In 2011 (aged 53) he was diagnosed with type 2 diabetes and hypertension. (BMI 25 kg/m^2, QRISK score 9%)
    - He was started on metformin and candesartan
    - Later, pioglitazone and amlodipine were added
- In 2023 (aged 65) his BP was 146/88 mmHg, HbA1c 59 mmol/mol, BMI 27 kg/m^2
- Later that year he had a STEMI (which was treated with PCI and a stent) and he developed heart failure with reduced ejection fraction
    - Aspirin, atorvastatin, bisoprolol, empagliflozin and eplerenone were added to his metformin (plus ticagrelor until 2024)
    - His candesartan was swapped for sacubitril-valsartan; his pioglitazone and amlodipine were stopped

Ted's journey (2)

- In February 2026 Ted is 68. His BMI is now 29.5 kg/m^2, his HbA1c is 63 mmol/mol, his BP is 138/85 mmHg
- Until now he has declined additional hypoglycaemic treatment
- Late last year, he was diagnosed with chronic kidney disease (CKD); his eGFR is 56 ml/min/1.73 m^2 and his ACR is 22 mg/mmol
    - Current medication: aspirin, atorvastatin, bisoprolol, empagliflozin with metformin (Synjardy®), eplerenone and sacubitril-valsartan

How should his medication change in light of NG28?



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Ted's journey (3)

- Because of Ted's ASCVD, the guideline has an 'offer' recommendation for semaglutide (Ozempic®) up to 1 mg/week for its cardiovascular and renal benefits (may also help his blood glucose control)
- The guideline does not recommend anything additional to Ted's current treatment due to his CKD
- He could be asked to switch from empagliflozin with metformin (Synjardy®) to separate dapagliflozin and metformin as a cost-effective option

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New resources for implementation

Implementation support

- Implementation advice: health inequalities in type 2 diabetes
- Prescribing guide: individualising medicine use for people with type 2 diabetes
- Measuring the use of NICE guidance

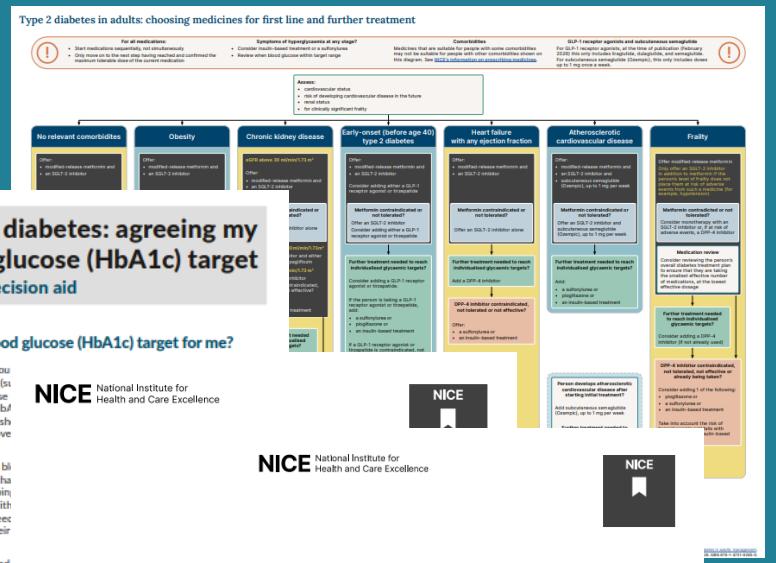
Resource impact template & summary report

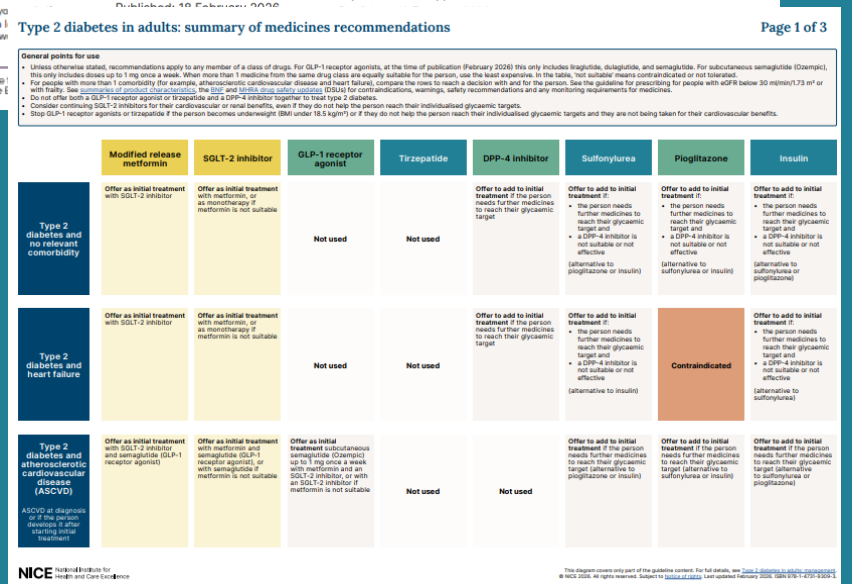
Summary versions

- Summary of medicines recommendations
- Visual summary: choosing, reviewing and changing medicines

Baseline assessment tool

Patient decision aid on type 2 diabetes: agreeing my blood glucose (HbA1c) target





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www.nice.org.uk/guidance/ng28/resources

Planning for implementation

MeReC Bulletin 2011:22(2)

- What is the change in practice being proposed?
- What are the drivers for this change in practice?
- What are the potential obstacles to the change?
- What is the plan going to look like?
- How frequently will the plan and the interventions be reviewed?

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Contact details

NHS Futures: NICE Uptake and Adoption Support

Q community

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