Management of type 2 diabetes in adults: NICE updates guidance

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Introduction

The National Institute for Health and Care Excellence (NICE) recently (February 2026) published another update to the NG28 guidance for 'Type 2 diabetes in adults: management'.[1] The underlying theme remains much the same as earlier versions dating from December 2015, namely individualised care tailored to patient needs and wishes. The latest version follows international consensus statements that are moving the treatment algorithm from a 'glucocentric' to a more 'complications-driven' approach designed to focus strongly on cardiorenal risk reduction.[2] Accordingly, the initial assessment has been updated to take full account of pre-existing, current or high risk for atherosclerotic cardiovascular disease (ASCVD), heart failure and chronic kidney disease (CKD), as well as obesity, frailty and early adult onset (<40 years old) of type 2 diabetes (T2DM). Recommendations for glucose-lowering therapies are then based on this assessment, aiming to control blood glucose with minimal risk of overt hypoglycaemia and to manage body weight without undue loss of muscle. The main changes from the previous (2022) version of NG28 are summarised in table 1.

Diagnosis and initial consultation

Diagnostic criteria for T2DM remain unchanged: they are not included in NG28 but are listed in the Clinical Knowledge Summary (CKS; table 2).[3] CKS provides useful reminders about clinical signs and interpretations of hyperglycaemia, but does not address prediabetes (intermediate hyperglycaemia) when preventative intervention can usefully be initiated (table 3).[4]

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Table 1. What's the same and what's different in the 2026 version of the NG28 NICE guidance for the management of type 2 diabetes in adults

Guidance	Changed	Comment
Diagnostic criteria	No	Not actually included within NG28
Initial assessment	Yes	Complications-driven approach; focus on cardiorenal status/risk, obesity, age and frailty
Lifestyle advice	Slightly	Extra emphasis on weight management
Glucose monitoring	No	Self-monitoring valuable when circumstances are changing, eg adjusting medication
HbA_{1c} targets	No	Preferably ≤48 mmol/mol (6.5%), or ≤53 mmol/mol (7.0%) if high risk of hypoglycaemia. Intensify if ≥58 mmol/mol (7.5%)
Initial glucose-lowering therapy	Yes	MR-metformin with early addition of an SGLT2 inhibitor
Obese	Slightly	MR-metformin plus an SGLT2 inhibitor, plus consideration of a GLP-1 receptor agonist
Early-onset type 2 diabetes	Yes	Special attention: MR-metformin plus an SGLT2 inhibitor, plus consideration of a GLP-1 receptor agonist
Heart failure	Yes	MR-metformin plus an SGLT2 inhibitor (irrespective of ejection fraction)
ASCVD	Yes	Consideration of early use of triple therapy with MR-metformin plus an SGLT2 inhibitor and a GLP-1 receptor agonist
CKD	Yes	MR-metformin plus an SGLT2 inhibitor. In severe CKD (eGFR <30 ml/min/1.73m^2) replace metformin with a DPP-4 inhibitor and/or pioglitazone before insulin
Frailty	Yes	Be cautious: MR-metformin plus an SGLT2 inhibitor or DPP-4 inhibitor

Key: ASCVD= atherosclerotic cardiovascular disease; CKD= chronic kidney disease; DPP-4= dipeptidyl peptidase-4; eGFR= estimated glomerular filtration rate; GLP-1= glucagon-like peptide-1; MR= modified release; NG28= NICE guidance 28; SGLT2= sodium-glucose cotransporter-2.

Table 2. Type 2 diabetes in adults: features for suspicion and diagnostic criteria.

Index of suspicion	
Symptomatic	Polydipsia, polyuria, blurred vision, unexplained weight loss, recurrent infections, persistent tiredness, acanthosis nigricans
Risk factors	Obesity, inactivity, inappropriate diet, family history of diabetes, ethnicities at increased risk (e.g. Asian, Afro-Caribbean), prior gestational diabetes, certain drug therapies (e.g. corticosteroids), polycystic ovarian syndrome, low birth weight, metabolic syndrome
Diagnostic criteria	
HbA_{1c}*	≥48 mmol/mol (6.5%)
Fasting plasma glucose*	≥7 mmol/L
Random plasma glucose	≥11.1 mmol/L and symptomatic

*Repeat test if individual is asymptomatic

Table 3. Diagnostic criteria adopted for prediabetes (intermediate hyperglycaemia) in the UK

HbA_{1c}	42-47 mmol/mol]
Impaired glucose tolerance (IGT)	Plasma glucose 7.8-11.0 mmol/L at 2 hours after a 75 g oral glucose challenge
Impaired fasting glucose (IFG)	Fasting plasma glucose 6.0-6.9 mmol/L

Initial recommendations after diagnosis continue to emphasise a personalised approach with lifestyle advice (diet, exercise and healthy living) preferably supported by a structured education programme. This should be open to family members or carers and include guidance on self-monitoring of capillary blood glucose, precautions for driving, hypoglycaemia awareness and avoidance, and sick-day adjustments relevant to the anticipated therapies and care pathway. Lifestyle should be reinforced whenever possible, and NG28 provides a link to information about the low-calorie diet programme (800-900 kcal/day for 12 weeks) which aims for remission of newly diagnosed T2DM.[5]

Selecting targets

Although the latest NG28 guidance adopts a more complications-driven approach, it is accepted that the management of hyperglycaemia remains fundamental. HbA_{1c}, checked at least twice yearly, continues as the customary measure of overall glycaemic control. Targets are unchanged: aim for <48 mmol/mol (6.5%), or less stringent (<53 mmol/mol; 7.0%) if using a medicine associated with hypoglycaemia (e.g. insulin or sulfonylurea). Intensify glucose-lowering therapy if HbA_{1c} ≥58 mmol/mol (7.5%), although those who warn against clinical inertia will dutifully recommend against waiting for HbA_{1c} to rise to this level.

While self-monitoring of capillary blood glucose or continuous glucose monitoring are established for the introduction and dose titration of glucose-lowering and other glycaemia-altering medicines, such monitoring is otherwise generally reserved for those at increased risk of hypoglycaemia (e.g. insulin users, drivers using a sulfonylurea) and in pregnancy.

Selecting treatments

The shift towards a more complications-driven approach emphasises assessment of cardiorenal status/risk as well as body weight management, frailty and risk of hypoglycaemia when selecting initial glucose-lowering medication. The importance of patient involvement in the selection process continues to be stressed, to optimise compatibility with patient lifestyle preferences and constraints, and hopefully to support adherence (all part of usual individualised care).

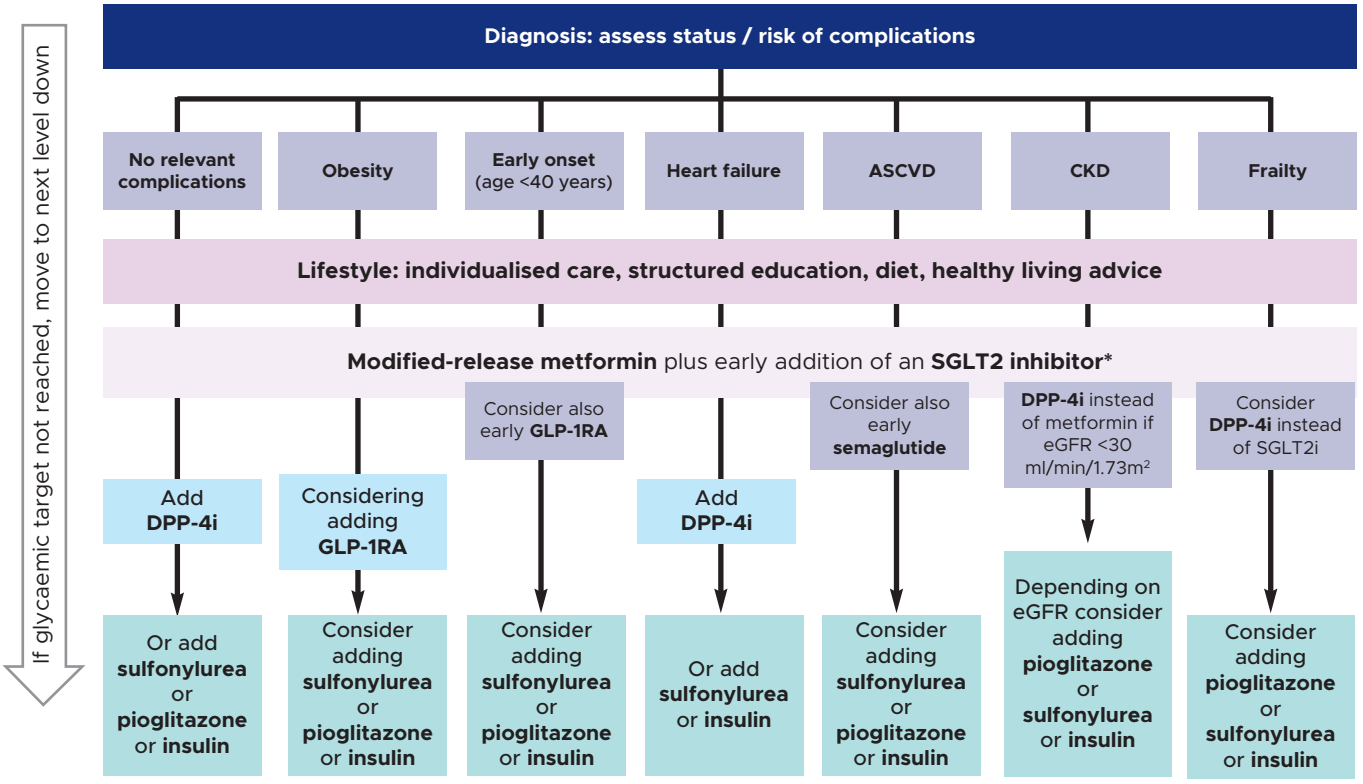
The main new medication features of the 2026 iteration of NG28 focus on preferred use of the modified-release formulation of metformin, early addition of a sodium-glucose cotransporter-2 (SGLT2) inhibitor and consideration of early introduction of a glucagon-like peptide-1 (GLP-1) receptor agonist. Accordingly, increased attention to co-morbidities and risk reduction has necessitated a bolder approach to early combination therapy, introducing medicines sequentially: availability of fixed-dose combinations to reduce pill burden is not discussed. The structure of the treatment algorithm now categorises individuals into those with (as yet) no relevant co-morbidities, early-onset disease (<40 years old) and/or living with obesity, heart failure, ASCVD, CKD or frailty. These treatment categories are summarised in a detailed illustration in NG28, so I have taken the liberty of attempting a less ambitious version herein (Figure 1).

Modified-release metformin (rather than the standard-release formulation) is recommended as initial glucose-lowering medication for all categories, even in CKD provided the estimated glomerular filtration rate (eGFR) is >30 ml/min/1.73m^2 (dose reductions appreciated if eGFR <45 ml/min/1.73m^2). Early addition of an SGLT2 inhibitor is also encouraged for all categories if further glucose lowering is required, noting caution with frail individuals. Recommendations for third-line glucose-lowering medications are divided between a GLP-1 receptor agonist (for obese, early-onset, atherosclerotic or frail individuals) or a dipeptidyl peptidase-4 inhibitor (DPP-4i; for those with heart failure, CKD or no relevant co-morbidity). If the algorithm is interrupted by a contraindication or intolerance then pioglitazone (except in heart failure) or a sulfonylurea (except if eGFR <30ml/min/1.73m^2) may be considered. Insulin-based therapies remain as last resort and especially for individuals with an HbA_{1c} ≥75 mmol/mol (9.0%).

Some observations

The complications-driven approach of the 2026 version of NG28 is logically guided by its recognition of vulnerable groups. Obesity guidance overlaps with NICE guideline NG246 (management of overweight and obesity) but rather underplays the opportunities for use of GLP-1 receptor agonists as third-line treatment.[6] Early onset of T2DM is notoriously susceptible

Figure 1. Slightly simplified summary of 'complications-driven' algorithm in NICE guidance NG28 for the management of T2DM in adults.



*Use of metformin requires eGFR ≥30ml/min/1.73m² and particular caution is suggested for use of an SGLT2 inhibitor in frail individuals. If an agent is not tolerated, move to the next class of agent down the algorithm. To achieve the desired glycaemic target, combination therapy may be required, start and titrate the dose of each agent sequentially. If the desired glycaemic target is not achieved, move to the next level down the algorithm. If an individual presents with marked and symptomatic hyperglycaemia, consider initial temporary treatment with a sulfonylurea or insulin, and revert back to the general algorithm when adequate glycaemic control is achieved.

Key: ASCVD= atherosclerotic cardiovascular disease; CKD= chronic kidney disease; DPP-4i= dipeptidyl peptidase-4 inhibitor; eGFR= estimated glomerular filtration rate; GLP-1RA= glucagon-like peptide-1 receptor agonist; MR= modified release; SGLT2i= sodium-glucose cotransporter-2 inhibitor.

to accelerated complications and deservedly warrants intensive intervention from diagnosis, and frailty is suitably flagged to receive delicately nuanced pharmacotherapy.[7,8] For people with heart failure, the value of an SGLT2 inhibitor alongside metformin is appropriately acknowledged, and the additional benefit of a GLP-1 receptor agonist beyond glycaemic control is noted for people with ASCVD, although NG28 only extends this option to semaglutide (1 mg subcutaneously, once weekly). In severe CKD (eGFR <30 ml/min/1.73m²) where a DPP-4 inhibitor is suggested alongside an SGLT2 inhibitor (either dapagliflozin or empagliflozin is specified), pioglitazone is suggested as third line before considering insulin. Dose adjustment of renally eliminated DPP-4 inhibitors and especial caution with insulin initiation are noteworthy.

While NG28 might be viewed as an economy guideline in some respects (eg GLP-1 therapies

Key messages

- NICE guidance NG28 recommends that initial assessment of people with type 2 diabetes (T2DM) should prioritise cardiorenal risk
- Early use of combination therapy is suggested with modified-release metformin plus an SGLT2 inhibitor
- If an individual is obese and/or requires further therapy consider triple combination by adding a GLP-1 receptor agonist
- If an individual has established atherosclerotic cardiovascular disease (ASCVD) consider triple combination therapy with metformin, an SGLT2 inhibitor and semaglutide
- For early-onset T2DM (age <40 years) also consider triple combination therapy
- In severe chronic kidney disease (CKD) (eGFR 30-20 ml/min/1.73m²) stop metformin and consider a DPP-4 inhibitor with an SGLT2 inhibitor

third line, biosimilar insulins where available, limited glucose monitoring), the guidance could also be regarded as cost-efficiently judicious. But perhaps the real value is the unwritten message that we have the expertise, care pathways and resources to significantly improve the health prospects for people with T2DM, and the earlier and more rigorously we deploy them .....the better.

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