NHS
South Yorkshire
Integrated Care Board

Guidelines for the management of TYPE 2 DIABETES in ADULTS based in Rotherham GP practices: UPDATE 18.12.25

THESE GUIDELINES ARE CURRENTLY UNDER REVIEW PENDING NICE GUIDANCE UPDATE DUE FEB 2026

Please continue to use this guidance in conjunction with the following South Yorkshire ICB position statements:

South Yorkshire Position Statement preference of SGLT2 inhibitors .pdf

South Yorkshire Position Statement Gliptins .pdf

Please be aware that there are currently no reported supply issues for the GLP1-RAs semaglutide, dulaglutide or liraglutide.

Guidelines for the management of TYPE 2 DIABETES in ADULTS based in Rotherham GP practices

This information/guidance has been developed within the Rotherham Place and approved for use by Rotherham GP practices only.

At diagnosis of type 2 DM refer patient to local diabetes dietitian team for dietary and weight management advice ideally before, or at initiation of pharmacological treatment for hyperglycaemia.

Offer structured education programme as integral part of diabetes care → DESMOND via DSN referral. Reinforce and review annually.

HbA1c 42-47mmol/mol	PRE-DIABETES	Healthier You: NHS Diabetes Prevention Programme (NHSDPP)
HbA1c > 48mmol/mol	DIABETES	LIFESTYLE ADVICE + DRUG TREATMENT + DESMOND and other programmes in addition if weight loss indicated

Pharmacological Treatment Summary

Step 1

Metformin

Titrate **slowly** from 500mg OD → 2g/day (max recommended dose)

If HbA1c levels not adequately controlled by a single drug and rise to ≥ 58 mmol/mol, or there is increased cardiovascular risk, **ADD** in step 2. If metformin not tolerated/contraindicated use Step 2 options

Step 2

SGLT2 inhibitors - **Empagliflozin** 10mg OD → 25mg OD

or

Dapagliflozin 10mg OD

If HbA1c levels are not adequately controlled by two drug and rise to ≥ 58 mmol/mol, **ADD** in Step 3. If step 2 drug not tolerated/contraindicated use Step 3 options

Step 3

GLP1 -

Semaglutide 0.25mg SC Weekly → 1mg Weekly

or

Dulaglutide 1.5mg SC Weekly → 4.5mg Weekly

or

Liraglutide 0.6mg SC OD → 1.8mg OD

Alternative Step 3 if GLP1 not tolerated or contraindicated.

DPP4i - **Linagliptin** 5mg OD

Insulin Required

Refer to joint DSN / Dietitian clinic

Key:

- Cardioprotective.
- Self blood glucose testing required.
- Produces weight loss.
- Not cardioprotective
- Does not produce weight loss

PERSONALISED DIABETES MANAGEMENT PLAN reviewed at least annually should integrate	
9 care principles based on the following clinical checks 1. HbA1c - individualised for each patient considering – risk of falls / hypo awareness, comorbidities, skilled tasks etc. 2. Blood pressure (NICE) 3. Serum cholesterol (NICE) 4. Serum creatinine 5. Urine albumin/creatinine ratio (NICE) 6. Foot risk surveillance 7. BMI and weight 8. Smoking history and status 9. Retinal screening	**Advice on:** ▪ diet ▪ physical activity ▪ weight loss ▪ other lifestyle modifications (i.e. alcohol intake, smoking cessation) ▪ glycaemic control targets ▪ pharmacological therapy for glucose control ▪ pharmacological therapy for cardiovascular and renal risk management ▪ risk and management of diabetic complications ▪ sick day rules

PHARMACOLOGICAL THERAPY IN type 2 DIABETES should address (where clinically relevant)

HbA1c	**CVD risk* or heart failure**	**Lipid profile**	**Blood pressure**	**Chronic kidney disease (CKD)**	**Weight loss**
Metformin + **Empagliflozin** (SGLT2i) + **Semaglutide** (GLP1-RA) [or linagliptin (DPP4i)] ↓ If poor control, consider **Insulin** initiation	**Empagliflozin** (SGLT2i) if no coexisting CKD diagnosis Do not offer antiplatelet therapy (aspirin or clopidogrel) if not indicated for co-existing cardiovascular disease.	**Atorvastatin** 20mg daily for CVD primary prevention if QRISK ≥10% increase dose to achieve a reduction in non-HDL-C > 40% from baseline. or **Atorvastatin** 80mg daily for secondary prevention in existing CVD (NICE)	**Ramipril** or **Candesartan** or **Amlodipine** at max licensed tolerated dose for HTN if ABPM/HBPM ≥135/85 (and under age of 80) (NICE)	**Ramipril** or **Candesartan** at max licensed tolerated dose + **Dapagliflozin** (SGLT2i) licensed indication if ACR ≥3mg/mmol (NICE)	**Semaglutide** (GLP1) contribute to significant weight reduction while improving glycaemic control

***HIGH RISK OF CVD:**

Adults aged 40 and over with DM2 and QRISK score >10%

Elevated lifetime risk of CVD in adults under 40 who present with hypertension, dyslipidaemia, smoking, obesity, 1st degree family history of premature CVD and continue SGLT2i when patient turns 40 even if QRISK score <10% (only stop if no longer appropriate)

Step 1	METFORMIN 💗	Aim for HbA1c of ≤ 48mmol/mol

Offer **standard release** 1st line:

- Titrate slowly from 500mg OD in weekly intervals to the max/tolerated dose as per renal function
- Split daily dose BD or TDS, always with main meals
- Dose dependant on renal function
- Max recommended dose due to side effect profile 2g/day if eGFR >60
- Max licensed dose 3g/day (not recommended due to increased side effects)
- Gastro-intestinal side effects often settle after approx. 1 week
- If not tolerated due to GI side effects, offer trial of generic modified release (MR) Metformin
- Routine blood glucose monitoring is not required with Metformin

Assess cardiovascular status and risk

➔ If **existing CVD or chronic heart failure** OFFER Empagliflozin (SGLT2i) in addition to Metformin as soon as Metformin tolerability confirmed - see step 2

➔ If **at high risk of CVD** CONSIDER Empagliflozin (SGLT2i) in addition to Metformin – see step 2

HIGH RISK OF CVD:

- Adults aged 40 and over with DM2 and QRISK score >10%
- Elevated lifetime risk of CVD in adults under 40 who present with hypertension, dyslipidaemia, smoking, obesity, 1st degree family history of premature CVD and continue SGLT2i when patient turns 40 even if QRISK score <10% (only stop if no longer appropriate)

If all formulations of **Metformin not tolerated or contraindicated** consider Empagliflozin (SGLT2i) as monotherapy – see step 2

Renal	Metformin dose adjustments for renal function				
	eGFR ≥60	**eGFR 59-45**	**eGFR 44-30**	**eGFR 29-15**	**eGFR >15**
	Recommended dose 2g daily divided BD-TDS (max licensed 3g daily i.e. 1g TDS)	Max daily dose 2g divided TDS but lower dose may be considered	Max daily dose 1g divided BD but lower dose may be considered	Contra indicated	

METFORMIN AND VITAMIN B12

Metformin therapy may cause reduced intestinal absorption of vitamin B12 leading to vitamin B12 deficiency. Check vitamin B12 levels if patient is symptomatic.

Step 2	SGLT2i	Sodium-glucose co-transporter-2 (SGLT2) inhibitors - "FLOZINS"

For all drugs in this class:
- To be added as soon as Metformin tolerability is confirmed (usually after a month)
- May be used as monotherapy if Metformin not tolerated or contra indicated
- Counsel on increased risk of diabetic ketoacidosis (DKA) and sick day rules with acute illness. DKA can occur with normoglycaemia, very low carbohydrate or ketogenic diet, when low endogenous insulin production/ increased insulin requirements (restricted food intake, alcohol abuse)
- Consider risk of volume depletion (esp. in patients aged 75+) – if at risk of fluid loss/ dehydration temporary stop SGLT2i
- Advise on potential and serious side effects e.g Fournier's gangrene, urinary tract infections

⊕ EMPAGLIFLOZIN

- Starting dose 10mg OD
- For tighter glycaemic control where eGFR≥60, the dose may be increased to 25mg OD

Renal

Empagliflozin dose adjustments for renal function				
eGFR ≥60	**eGFR 59-45**	**eGFR 44-30**	**eGFR 29-15**	**eGFR >15**
10mg OD may be increased to 25mg OD (max daily dose) for tighter glycaemic control.	Max dose 10mg OD Glucose lowering efficacy may be reduced – consider additional agent for glycaemic control.	Max daily dose 10mg OD Glucose lowering efficacy likely absent - consider additional agent for glycaemic control.	Not recommended for treatment of type 2DM – consider alternative or additional agent for glycaemic control. 10mg OD could be used in management of coexisting HF if eGFR ≥20. Not recommended if eGFR <20. Should not be used in dialysis or end stage renal disease.	

or ⊕ DAPAGLIFLOZIN

- May be used as a treatment when eGFR 15 - 29 mL/min/1.73m2
- Dose 10mg OD

Renal

Dapagliflozin dose adjustments for renal function				
eGFR ≥60	**eGFR 59-45**	**eGFR 44-30**	**eGFR 29-15**	**eGFR >15**
10mg OD		10mg OD Glucose lowering efficacy reduced - consider additional agent for glycaemic control.	10mg OD Glucose lowering efficacy likely absent - consider additional agent for glycaemic control.	Initiation not recommended but may be continued, including in dialysis. Not recommended if renal transplant required. Glucose lowering efficacy likely absent - consider additional agent for glycaemic control.

If not at target, SGLT2i not tolerated, or contra indicated ➔ consider treatment choice as in the step 3

Step 3	GLP1	Glucagon-like peptide-1 receptor agonists
	For all drugs in this class: - May be used as monotherapy if Metformin and/or SGLT2i are not tolerated or contra indicated - Not recommended for combined therapy with DPP4i (both work on incretin pathway and combination has no clinical benefit) - No dose adjustments required in the existing dose of Metformin, SGLT2i or alternatives prior to initiation of GLP1 - Semaglutide, Dulaglutide and Liraglutide provide cardiovascular protection and renal benefit (no evidenced for the remaining agents in this class) - Not recommended in patients with gastroparesis or severe inflammatory bowel disease - Patients should be advised this treatment slows down gastric emptying, resulting in feeling of early satiety – nausea can occur if attempting to eat when stomach is already full - Acute pancreatitis has been observed with this class of drugs - The most frequent adverse effects reported were mild to moderate and of gastro intestinal origin i.e. nausea, vomiting and diarrhoea. These were transient and rapidly declined within the initial 6 weeks of treatment	
Renal	- No dose adjustments are required with mild, moderate or severe renal impairment, but not recommended if eGFR<15 mL/min/1.73m2 - Some evidence that Semaglutide may be continued in renal dialysis	
⊕ **Semaglutide**	- Administered as a sub cutaneous injection ONCE WEEKLY - Dose 0.25mg once a week and after four weeks should be increased to treatment dose 0.5mg once a week. If tighter glycaemic control desired after 4 weeks of treatment, the dose may be further increased at 4 weekly intervals to 1mg once a week. The SmPC for Semaglutide states a 2mg once weekly max dose, however the 2mg injection is not currently available in the UK.	
or ⊕ **Dulaglutide**	- Administered as a sub cutaneous injection ONCE WEEKLY - Dose 1.5mg once a week. If tighter glycaemic control desired after 4 weeks of treatment, the dose may be increased at 4 weekly intervals to 4.5mg once a week (max dose) - if used as monotherapy the recommended dose is 0.75mg once a week	
or ⊕ **Liraglutide**	- Administered as a sub cutaneous injection ONCE A DAY around the same time - Dose 0.6mg once a day and after at least one week increased to treatment dose 1.2mg daily. If tighter glycaemic control desired, the dose may be increased to 1.8mg once a day (max dose) - Needles need to be prescribed (from the current insulin pen needle recommended choices)	

Alternative agents	
DPP4i	Dipeptidyl peptidase 4 inhibitors – "GLIPTINS"
⊕ **LINAGLIPTIN** 	- Dose 5mg OD - May be used as monotherapy if Metformin / SGLT2i / GLP1 are not tolerated or contraindicated. - Can be used in combination with Metformin and SGLT2i - Do not use with GLP1-RA - Acute pancreatitis has been observed with this class of drugs – patients should be advised on signs and symptoms. - Drugs in this class are used for reducing HbA1c only, they do not provide any clear cardiovascular benefit, renal protection or weight loss.
Renal 	No dose adjustments are required with mild, moderate or severe renal impairment, not recommended if eGFR<15 or in patients on dialysis
Patients currently treated with DPP4i for glycaemic control who have not tried GLP1 before, may benefit from switching to GLP1 and discontinuation of DPP4i if clinically appropriate. The treatment change would be clinically beneficial especially in patients with poor glycaemic control, or if they are obese, have established cardiovascular disease, and/or have cardiovascular risk factors.	
	Insulin
	- If insulin required, refer to the joint DSN / Dietitian clinic

REMAINING TREATMENT OPTIONS - LOCALLY NOT RECOMMENDED AS ROUTINE GLUCOSE LOWERING THERAPY	
GLICLAZIDE  **and other sulphonylureas**	- Associated with weight gain. - Associated with risk of hypoglycaemia, risk increased in patients with impaired renal function - Occasional capillary blood glucose monitoring should be advised (as per local blood glucose monitoring guidelines) and as required by DVLA
PIOGLITAZONE	- Associated with increased risk of cardiac failure and weight gain - Associated with increased risk of bladder cancer - Associated with increased incidence of bone fractures

INSULIN or SULFONYLUREA (i.e. gliclazide) may be considered for temporary management of symptomatic hyperglycaemia at any phase of treatment as a **RESCUE THERAPY**.

SICK DAY RULES WITH MEDICATIONS FOR DIABETES MANAGEMENT (SADMAN)

During sickness with diarrhoea, vomiting, fever, or when there is a high risk of dehydration and temporary volume depletion patients should be advised to **temporary stop** the following medication and restart once feeling better, and eating, and drinking resumed for at least 24-48 hours. Prescribe Ketone test strips as required where appropriate.

The following medications, if continued during dehydration, may increase the risk of developing:

S	**SGLT2i**	euglycaemic ketoacidosis (DKA)
A	**ACEi**	acute kidney injury (AKI)
D	**Diuretics**	acute kidney injury (AKI)
M	**Metformin**	lactic acidosis
A	**ARBs**	acute kidney injury (AKI)
N	**NSAIDs**	acute kidney injury (AKI)

LOCAL AND NATIONAL PROGRAMMES AVAILABLE FOR PATIENTS WITH TYPE 2 DM

PROGRAMME	Patient criteria	How to refer?	Further info
DESMOND	Adult with type 2 DM on diagnosis	Via DSN referral form	National structured education programme
NHS Digital Weight Management Programme	Age 18+, BMI 30-34.9 (27.5+ BAME) with type 2 DM or type 1 DM (and/or hypertension)	GP via eRS -referral form on clinical system (EMIS and S1) or via community pharmacy	National programme
BETTY	BMI above 25 and on >1 medication/insulin and diagnosed with type 2 DM **more than 6 years ago**	Referral to diabetes dietitians	Local programme BETTY.pdf (yourhealthrotherham.co.uk)
Low Calorie Diet (12-month Total Diet Replacement)	age 18-65, type 2 DM diagnosed within 6 years and BMI 27+ (25+ BAME) and HbA1C (within last 12 months) 43-87 mmol/mol if on any diabetes meds; or 48-87mmol/mol if not on any diabetes meds	GP via referral form on clinical system (EMIS and S1)	local pilot taking referrals up to May 2023 The NHS Low Calorie Diet Pilot :: SYB ICS (syics.co.uk) SYB-LCD-Flowchart-Primary-Care-v2.pdf (yourhealthrotherham.co.uk)
Oviva – Diabetes remission for type 2 DM (pending commissioning decision)	age 18-70, BMI 27-45 (25-45 BAME), DM2 diagnosed within 10 years and HbA1c (within last 12 months) 43-87 mmol/mol if on any diabetes meds or 48-87mmol/mol if not on any diabetes meds)	GP referral	Digital based 12-month Low Calorie Diet & behaviour change programme lead by dietitian