

Algorithm for the Management of Type 2 Diabetes

STEP 1 – Initial Drug Treatment – Monotherapy: Target HbA1c 48 mmol/mol

Lifestyle advice + Referral to Good2Go ± Metformin (consider 3 months lifestyle change first)
Consider trial of modified-release metformin in patients who experience gastrointestinal side effects with standard release metformin

If Metformin contraindicated (CI) or intolerant and HbA1c 53 mmol/mol start monotherapy with:

1. Sulfonylurea-Target HbA1c 48-53 mmol/mol, *Blood glucose monitoring may be required initially in view of hypoglycaemia risk if commencing sulfonylurea**
2. Or DPP4i
3. Or SGLT2i - if above two options not suitable or if DPP4i is ineffective, before moving to Step 2.
4. Or Pioglitazone

See page two for information on medication choice and when to stop

*Please refer to "[Who to Test, When to Test](#)" guidance

STEP 2 – Dual Therapy: Target HbA1c 53 mmol/mol

For non-obese patients:
Metformin + Sulfonylurea

If Metformin intolerant or CI:
Sulfonylurea + DPP4i
Or
Sulfonylurea + Pioglitazone

If BMI < 25 kg/m² and osmotic symptoms – consider straight to insulin as could be late onset Type 1 Diabetes

For obese patients (BMI over 30 or over 27.5 if of Asian, Black African or African-Caribbean descent) or if hypo risk is a major issue consider:

Metformin +

1. SGLT2i (or)
2. Or DPP4i (suitable for frailty) (or)
3. Or Pioglitazone

Metformin intolerant or CI

1. Sulfonylurea + DPP4i (or)
2. DPP4i + Pioglitazone (or)
3. Sulfonylurea + Pioglitazone (or)
4. If SGLT2i monotherapy consider adding a sulfonylurea or injectable (see below)

STEP 3 – Triple Therapy: If HbA1c > 58 mmol/mol or individually agreed target

1. Metformin + Sulfonylurea + SGLT2i (or)
2. Metformin + Sulfonylurea + DPP4i (or)
3. Metformin + Sulfonylurea + Pioglitazone (or)
4. Metformin + Pioglitazone + SGLT2i (canagliflozin or empagliflozin only)

If BMI > 25 kg/m² consider option 1 (ensure eGFR > 60 mL/min).

If BMI < 25 kg/m² consider option 2

Metformin intolerant /CI:

Likely to require injectable therapy therefore move to step 4

STEP 4 – Injectables

Options are to replace DPP4i, Pioglitazone or SGLT2i with an injectable

Consider referral to Community Diabetes Team for support with initiation via RSS or

Tel: 01904 724938 (nurse) or 01904 724942 (consultant)

Medication choice / decision making support

Assess the response of any new class of drug at 3-6 months – if there is no reduction of at least 6mmol/mol (0.5%) in HbA1c in 6 months or if there are any concerns regarding side effects **stop** the chosen medication and move to an alternative class.

Consult individual Summary of Product Characteristics for full prescribing information

Agent	Sulfonylurea Gliclazide	DPP4i <i>First choice Sitagliptin unless CKD then Linagliptin</i>	Glitazone Pioglitazone	SGLT2i <i>First choice Dapagliflozin canagliflozin or empagliflozin only if in triple therapy with pioglitazone</i>
Positive reasons to use this class	<ul style="list-style-type: none"> Low cost Rapid clinical effect Long established profile Agent of choice in MODY 	<ul style="list-style-type: none"> Low hypoglycaemia risk Weight neutral Licensed in people with CKD (may require dose reduction) Fewer drug interactions 	<ul style="list-style-type: none"> Low hypoglycaemia risk Reduces insulin resistance Slower progression to insulin treatment 	<ul style="list-style-type: none"> Low hypoglycaemia risk Weight loss
Reasons not to use this class	<ul style="list-style-type: none"> Risk of hypoglycaemia (increased in CKD) Potential need for blood glucose monitoring Weight gain 	<ul style="list-style-type: none"> Relatively low potency and moderate cost 	<ul style="list-style-type: none"> Weight gain Slow onset of action Contraindicated in CCF, LVF Risk of fractures (women) Small increase in incidence of bladder cancer) Moderate cost 	<ul style="list-style-type: none"> If eGFR <60 UTI, genital thrush Relatively new class – unexpected long term side effects may yet to be recognised Moderate cost Risk of DKA
Good choice for	<ul style="list-style-type: none"> Preferred to metformin for patients with osmotic symptoms 	<ul style="list-style-type: none"> In people whom further weight gain would cause or exacerbate significant problems associated with high body weight Frail older people Any person for whom hypoglycaemia is a particular concern 	<ul style="list-style-type: none"> Most likely to benefit people who wish to delay progression to insulin (e.g. group 2 LGV and C1 driving licence holders) 	<ul style="list-style-type: none"> Obese people In those whom further weight gain would cause or exacerbate significant problems associated with high body weight People for whom hypoglycaemia is a particular concern
Monitoring required	<ul style="list-style-type: none"> Consider home glucose monitoring as per "Who to Test, When to Test" guidance* 	<ul style="list-style-type: none"> Review U & E annually 	<ul style="list-style-type: none"> Review urine dip for blood annually Review LFTs annually Stop if heart failure/fluid overload develops 	<ul style="list-style-type: none"> Review U & E annually

Repaglinide and nateglinide are 'Amber specialist recommendation' drugs, please speak to the diabetes specialist team before initiating.