MANAGEMENT ALGORITHM FOR TYPE 2 DIABETES

Expiry date: 30 June 2022

INITIAL MANAGEMENT

Diagnosis	Lifestyle management	Metformin
Confirm the diagnosis and type of diabetes Determine individualised glycaemic target	Education, support, healthy eating + exercise Essential at all times throughout duration of diabetes	Start unless contraindicated Increase to maximal tolerated dose or 2 g per day

The target HbA1c for most patients with type 2 diabetes is < 53 mmol/mol

- If HbA1c > 64 mmol/mol at diagnosis consider starting additional agent with lifestyle management and Metformin to reach target
  - If cardiovascular and/or renal disease and/or heart failure → preferably SGLT2i or GLP1RA (see below)
  - If no cardiovascular or renal disease and no heart failure → preferably DPPIVi
- Consider starting insulin therapy immediately if:
  - Symptoms of hyperglycaemia/insulin deficiency and/or HbA1c > 90 mmol/mol
  - Suspicion of type 1 diabetes or loss of pancreatic function

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Diabetic renal disease* OR heart failure OR known cardiovascular disease OR 5 year CVD risk > 15%

*Renal disease = urinary albumin:creatinine ratio > 3 mg/mmol and/or reduced eGFR

YES ↓

Ensure statin (for all) AND ACEi or ARB (if renal disease or heart failure) AND metformin (if CVD) therapy

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Heart failure or renal disease predominates

- **YES** ↓ Add SGLT2i† regardless of HbA1c if no contra-indications (HbA1c needs to be >53 mmol/mol for funding)
- **NO** ↓ Add GLP1RA† or SGLT2i† regardless of HbA1c if no contraindications. GLP1RA likely preferable if cerebrovascular disease predominates (HbA1c needs to be >53 mmol/mol for funding)

If unable to tolerate or HbA1c remains above target ↓

GLP1RA† preferred next therapy after SGLT2i†
SGLT2i† preferred next therapy after GLP1RA†
(dual SGLT2i/GLP1RA therapy is not currently funded)

Alternative agents include:
DPPIVi if not on GLP1RA
Thiazolidinediones (TZD) if no heart failure
Sulfonylureas (SU)
Insulin

NO ↓

Repeat HbA1c in 3 months

- *If target HbA1c reached* → Repeat HbA1c 6 monthly and annual review of CVD + renal risk
  - *If HIGH RISK of renal or CV disease* → back to "Diabetic renal disease OR heart failure OR known cardiovascular disease OR 5 year CVD risk > 15%"
  - *If HbA1c above target* ↓
- *If HbA1c above target* ↓

ADDITIONAL CONSIDERATIONS	Preferred 2nd line agents: SGLT2i†	Preferred 2nd line agents: GLP1RA†	Preferred 2nd line agents: DPPIVi	3rd line agents: TZD	3rd line agents: SU	3rd line agents: Insulin
Risk of hypoglycaemia	Rare	Rare	Rare	Rare	Yes	Yes
Mean ↓ in HbA1c (mmol/mol)	6 - 13	15	5 - 10	15	15	Any
Independent cardiorenal benefits	Yes	Yes	No	Yes	No	No
Effect on weight	↓	↓↓	↔	↑	↑	↑
Funded	SA only†	SA only†	Yes	Yes	Yes	Yes

↓

Escalate therapy + repeat HbA1c every 3 months until target reached

- May require multiple agents including insulin therapy
- Ensure adherence to lifestyle management + medications
- Re-refer for dietitian input if appropriate
- Repeat HbA1c 6 monthly once target reached
- Assess CVD and renal risk at least annually
- Continue standard care to reduce CVD risk e.g. statins, antihypertensives (esp. ACEi in diabetic renal disease) etc.

†SA criteria for SGLT2i and GLP1RA (all required and same for both classes)

- Patient has type 2 diabetes with an HbA1c > 53 mmol/mol despite > 3 months of regular use of at least one glucose lowering therapy (includes metformin)
- The patient is of Māori and/or any Pacific ethnicity OR has known diabetic renal disease OR known CVD OR 5 year CVD risk > 15% OR a high lifetime CVD risk due to onset of diabetes during childhood or as a young adult
- The patient is not on funded SGLT2i and GLP1RA therapy at the same time

Reference: NZSSD Type 2 diabetes management algorithm, available at www.t2dm.nzssd.org.nz. Accessed May 13, 2021.

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