

## Blood glucose lowering therapy in adults with type 2 diabetes

- Reinforce advice on diet, lifestyle and adherence to drug treatment.
- Agree an individualised HbA1c target based on: the person's needs and circumstances including preferences, comorbidities, risks from polypharmacy and tight blood glucose control and ability to achieve longer-term risk-reduction benefits. Where appropriate, support the person to aim for the HbA1c levels in the algorithm. Measure HbA1c levels at 3/6 monthly intervals, as appropriate. If the person achieves an HbA1c target lower than target with no hypoglycaemia, encourage them to maintain it. Be aware that there are other possible reasons for a low HbA1c level.
- Base choice of drug treatment on: effectiveness, safety (see MHRA guidance), tolerability, the person's individual clinical circumstances, preferences and needs, available licensed indications or combinations, and cost (if 2 drugs in the same class are appropriate, choose the option with the lowest acquisition cost).
- Do not routinely offer self-monitoring of blood glucose levels unless the person is on insulin, on oral medication that may increase their risk of hypoglycaemia while driving or operating machinery, is pregnant or planning to become pregnant or if there is evidence of hypoglycaemic episodes.

If the person is symptomatically hyperglycaemic, consider insulin or gliclazide. Review treatment when blood glucose control has been achieved.

### ADULT WITH TYPE 2 DIABETES WHO CAN TAKE METFORMIN

If HbA1c rises to 48 mmol/mol (6.5%) on lifestyle interventions:

- Offer **standard-release metformin**
- Support the person to aim for an HbA1c level of 48 mmol/mol (6.5%)

**FIRST INTENSIFICATION**  
If HbA1c rises to 58 mmol/mol (7.5%):

- Consider **dual therapy** with:
  - metformin and Alogliptin
  - metformin and pioglitazone (maximum dose of 30mg)
  - metformin and Gliclazide
  - metformin and SGLT2
- Support the person to aim for an HbA1c level of 53 mmol/mol (7.0%)

**SECOND INTENSIFICATION**  
If HbA1c rises to 58 mmol/mol (7.5%):

- Consider:
  - Oral triple therapy with:
    - o metformin, alogliptin and gliclazide
    - o metformin, pioglitazone and gliclazide
    - o metformin, pioglitazone and Empagliflozin OR Canagliflozin
  - metformin, gliclazide and empagliflozin OR Canagliflozin
  - insulin-based treatment
- Support the person to aim for an HbA1c level of 53 mmol/mol (7.0%)

If standard-release metformin is not tolerated e.g. in the elderly, consider a months trial of **modified-release metformin** and continue if tolerated

If triple therapy is not effective, not tolerated or contraindicated, consider combination therapy with metformin, gliclazide and lixisenatide for adults with type 2 diabetes who: - have a **BMI of 35 kg/m<sup>2</sup> or higher** (adjust accordingly for people from black, Asian and other minority ethnic groups) and specific psychological or other medical problems associated with obesity or - have a BMI lower than 35 kg/m<sup>2</sup>, and for whom insulin therapy would have significant occupational implications, or weight loss would benefit other significant obesity-related comorbidities.

### METFORMIN CONTRAINDICATED OR NOT TOLERATED

If HbA1c rises to 48 mmol/mol (6.5%) on lifestyle interventions:

- Consider **one** of the following:
  - Alogliptin, pioglitazone or gliclazide
- Support the person to aim for an HbA1c level of 48 mmol/mol (6.5%) for people on a DPP-4i or pioglitazone or 53 mmol/mol (7.0%) for people on an SU

**FIRST INTENSIFICATION**  
If HbA1c rises to 58 mmol/mol (7.5%):

- Consider dual therapy with:
  - Alogliptin and pioglitazone
  - Alogliptin and gliclazide
  - pioglitazone and gliclazide
- Support the person to aim for an HbA1c level of 53 mmol/mol (7.0%)

**SECOND INTENSIFICATION**  
If HbA1c rises to 58 mmol/mol (7.5%):

- Consider insulin-based treatment
- Support the person to aim for an HbA1c level of 53 mmol/mol (7.0%)

