

## Barnsley Treatment algorithm for the management of Type 2 diabetes

To be used in conjunction with the Barnsley Diabetes Guidelines 2016 available at: <http://best.barnsleyccg.nhs.uk/clinical-support/medicines/prescribing-guidelines/Barnsley%20Diabetes%20Guidelines.pdf> and the Summary of Product Characteristics for the individual drugs, available at: [www.medicines.org.uk](http://www.medicines.org.uk)

- Reinforce advice on diet, lifestyle and adherence to drug treatment
- Agree individualised HbA1c target (taking into account hypoglycaemia risk, disease duration, life expectancy, co-morbidities, vascular disease and motivation). Check HbA1c 3-6 monthly and support individual to achieve target.(see below)
- Do not routinely offer blood glucose self-monitoring unless patient is on insulin or other drugs likely to cause hypoglycaemia, pregnant or likely to become pregnant or suffering from hypoglycaemia.

### Adult with T2D able to take metformin

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

- Metformin 500-850mg bd-tds with or after meals. Adjust dose after 10-15 days according to response. Max 3g daily.
- If standard metformin not tolerated consider MR metformin.

Aim for HbA1c level of 48mmol/mol (6.5%)

**First Intensification** if HbA1c rises to 58mmol/mol (7.5%). Consider **dual therapy**:

- Metformin plus a DPP-4inhibitor (e.g. Sitagliptin 100mg od)
- Metformin plus pioglitazone (15mg to 30mg od. Increase to 45mg od if necessary).
- Metformin plus a sulfonylurea (e.g. Gliclazide initially 40mg to 80mg od. Increase to 160mg od if needed.
- Metformin plus a SGLT2inhibitor (e.g. Empagliflozin 10mg once daily, increasing to 25mg once daily if necessary)

Aim for HbA1c level of 58mmol/mol (7.5%)

**Second Intensification** if HbA1c rises to 58mmol/mol (7.5%). Consider **triple therapy\***:

- Metformin **plus** DPP-4inhibitor (e.g. Sitagliptin) **plus** sulfonylurea (e.g. Gliclazide)
- Metformin **plus** pioglitazone **plus** sulfonylurea (e.g. Gliclazide)
- Metformin **plus either** pioglitazone **or** a sulfonylurea (e.g. Gliclazide) **plus** SGLT2inhibitor (e.g. Empagliflozin)
- Addition of insulin

Aim for HbA1c level of 53mmol/mol (7.0%)

### Adult with T2D where metformin is contraindicated or not tolerated

If HbA1c rises to 48mmol/mol (6.5%) on lifestyle interventions. Consider one of the following:

- DPP-4inhibitor (e.g. Sitagliptin) **or** pioglitazone **or** sulfonylurea (e.g. Gliclazide)
- Aim for HbA1c level of 48mmol/mol (6.5%) in patients taking a DPP-4inhibitor or pioglitazone
- Aim for HbA1c level of 53mmol/mol (7.0%) in patients taking a sulfonylurea

**First Intensification** HbA1c rises to 58mmol/mol (7.5%)

Consider **dual therapy**:

- DPP-4inhibitor (e.g. Sitagliptin) **plus** pioglitazone
- DPP-4inhibitor (e.g. Sitagliptin) **plus** sulfonylurea (e.g. Gliclazide)
- Pioglitazone **plus** sulfonylurea (e.g. Gliclazide)

Aim for HbA1c level of 53mmol/mol (7.0%)

**Second Intensification** HbA1c rises to 58mmol/mol (7.5%)

Consider:

- Addition of insulin
- Aim for HbA1c level of 53mmol/mol (7.0%)

\*If **triple therapy** is not effective, not tolerated or contraindicated, consider combination therapy with metformin **plus** sulfonylurea **plus** GLP-1 mimetic for adults with type 2 diabetes who:

- Have BMI of  $\geq 35$  kg/m<sup>2</sup> (adjust for people from black, Asian and other minority ethnic groups) and specific psychological or other medical problems associated with obesity **OR**
- Have 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 co-morbidities