

**Macleod Diabetes & Endocrine Centre
Royal Devon & Exeter Hospital**

Pioglitazone

Typical use

- **Add to max tolerated metformin & sulphonylurea**, as alternative to insulin.
- **Commence pioglitazone 30mg od**, or 15mg od if HbA1c is less than 11 mmol/mol (1%) above target.
- **Increase if needed** – to 45mg or 30mg, based on HbA1c after 3 months.

Other uses:

- Added to either metformin or sulphonylurea, if both cannot be taken.
- Used alone, if neither metformin nor sulphonylurea can be taken.
- Added to insulin – usually on specialist advice, if very insulin resistant.

When to avoid pioglitazone:

- Pregnancy or breastfeeding.
- Heart failure. Pioglitazone causes fluid retention, which may worsen pre-existing heart failure.
- Osteoporosis or increased fracture risk (e.g. older post-menopausal women).
- Bladder cancer, or haematuria not yet investigated.
- Advanced liver disease (can use and monitor if only minor LFT abnormalities).

Side effects:

- Fluid retention – as above.
- Weight gain (average 2-5kg).
- Risk of osteoporosis.
- Possible risk of bladder cancer.

Renal impairment:

- Permitted in renal impairment – no dose adjustment.

Long-term data:

- ProACTIVE study arguably showed reduction of cardiovascular events (death, MI, stroke) with pioglitazone.

Driving

- Group 1 (normal) licence: no need to notify DVLA unless disabling hypos (very unlikely with pioglitazone).
- Group 2 licence: notify DVLA, but should not affect licence, and can continue driving while waiting DVLA assessment. No obligation from DVLA to monitor blood glucose, but they advise monitoring regularly and at times relevant to driving.