Macleod Diabetes & Endocrine Centre
Royal Devon & Exeter Hospital

Sulphonylureas

Which sulphonylurea?

- Formulary recommendation is **gliclazide**. Glipizide is an alternative.
- Glimepiride is once-daily, but perhaps causes more hypos, particularly in elderly.
- We have not found nateglinide and repaglinide useful as a rule.

Blood glucose monitoring

- This may be appropriate for patients who drive – see below.
- It would obviously be appropriate for patients who have more than occasional hypos but choose to remain on a sulphonylurea.

Usual starting regime

- Start gliclazide 80mg od, then increase to 80mg bd after a week if no side effects.
- Increase dose if HbA1c remains high after 2-3 months.

If initial HbA1c is well above target (e.g. >70 mmol/mmol)

- Likely to need full dose. Titrate more rapidly, unless elderly or other risk for hypos.
- Start gliclazide 80mg bd, and increase to 160mg bd after a week if no side effects.

If concern for hypos, or initial HbA1c is only just above target (e.g. <58 mmol/mol):

- Adjust dose more cautiously – the risk of hypos will be higher.
- Start gliclazide 40mg od, after a few weeks if no side effects increase to 80mg od.
- Increase dose further if HbA1c remains high after 2-3 months.

Contraindications:

- Liver impairment: use cautiously (risk of hypos). Does not apply to minor liver enzyme abnormalities.
- Pregnancy and breast-feeding – avoid except on specialist advice.

Side effects

- Hypoglycaemia:
  - particularly with physical activity and delayed meals;
  - particularly if glycaemic control is already tight.
- Rarely, abnormal liver function.
- Allergic skin reactions, rarely photosensitivity and erythema multiforme.

Renal impairment:

- Use cautiously, as increased risk of hypoglycaemia.
- Use gliclazide (hepatic excretion) rather than glipizide (hepatic and renal excretion).

Driving: normal (group 1) licence

- No need to notify DVLA, unless there are disabling hypos.
- DVLA now say that drivers should "*practice appropriate blood glucose monitoring at times relevant to driving*". This is different from the wording used for insulin-treated

diabetes, where testing is clearly mandatory. By implication, there is not quite the same expectation of monitoring, but DVLA do not give further clarification.

- We think it is reasonable to make a clinical judgement on this issue. A patient probably does not need to do a blood test before every journey if they have no hypos, or only very occasional mild hypos with reliable warning. Similarly, it may not be necessary to provide a glucose meter to patients who are already on an SU if they have been taking it without problems.
- We would certainly advise patients about the possibility of hypos, to have hypo treatment in their vehicle at all times, and to take hypo treatment if they have compatible symptoms.
- We suggest providing a meter to patients who drive when they first start an SU (especially if they drive regularly); the need to test before driving would then be determined by their subsequent experience of hypoglycaemia.
- If you do not feel able to make a clinical judgement on this issue, the default position would be to give the patient a meter and advise testing before driving.

Driving: group 2 licence (buses and lorries):

- Must notify DVLA, but should not affect licence. DVLA will probably advise the patient can continue driving while waiting DVLA assessment.
- Must monitor blood sugars twice daily, and at times relevant to driving.