

Diabetes UK position on the use of analogue insulins

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Why have we produced this position statement

Insulin analogues have been commonly used in clinical practice for a considerable time despite sometimes having a higher cost. Whether their benefits outweigh these higher costs is sometimes questioned.

Guidelines exist for the prescribing of insulin in general which include the use of analogues⁽¹⁻⁵⁾

There have been three new insulin analogues introduced in recent years: insulin degludec (Tresiba), the higher strength insulin glargine (Toujeo) and the faster acting insulin aspart (Fiasp).

How did we develop this position?

We developed this position statement through our knowledge and insight gained through a review of relevant literature and national guidance. We also gained expert opinion from diabetes clinicians through Diabetes UK's Council of Healthcare Professionals.

What we say about this issue

Diabetes UK supports NICE and SIGN guidelines that insulin analogues should be available to people with diabetes. The decision of which insulin is most appropriate should be made in consultation between the person with diabetes and their healthcare team and should follow NICE/SIGN guidance.

Recommendations

- Post-prandial glucose level is a direct and independent risk factor for cardiovascular disease⁽³⁾. Effect on post-prandial levels should be considered when prescribing bolus insulin.
- Pharmaceutical companies should address the issue of cost to ensure that new and novel therapies are affordable in the current climate and are supported by robust evidence of superiority to established therapies
- Although costs are of increasing importance within the current climate in the NHS, cost should not become the only criteria on which prescribing decisions are made although it has to be a consideration.
- Care should be taken in prescribing, dispensing and administering insulin that is available in different strengths to ensure accurate dosing.

Evidence and analysis

While there is limited evidence that insulin degludec, high strength insulin glargine or faster acting insulin aspart improve HbA1c, there is some evidence that Fiasp reduces postprandial glucose levels ⁽⁶⁾, while the long acting analogues reduce hypoglycaemia ^(7,8), reduce nocturnal hypos ⁽⁷⁾, and cause less weight gain ^(9,10).

There are certain practical benefits to insulin analogues – the flexibility they offer in the timing of insulin administration ⁽⁷⁻¹⁰⁾ and injecting a smaller volume of a higher strength insulin may be less painful ^(9,10).

It is noted however, that trials into insulin analogues were not designed to demonstrate superiority in blood glucose management (merely equivalence), there are difficulties in interpreting the data (a as terms such as severe hypoglycaemia are open to bias-prone definitions) ⁽¹¹⁾ and trial populations tend to be more motivated and different results may be found in clinical practice ⁽¹²⁾.

References

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