Type 2 Diabetes Human Insulin guidelines

Patient group

Type 2 diabetes new to insulin therapy

- Use of NPH insulin rather than insulin analogue as first line insulin therapy
- It is not expected that patients currently on analogue insulin should be changed unless appropriate according to medical needs
- Consideration for not using human insulin – as per N.I.C.E. guidelines

Choice of insulin regime

- Refer to onset, action & duration chart as per DUK
- Assess blood glucose monitoring pattern

1. If mostly high fasting blood glucose – Once daily Humulin I or Insulatard at bedtime
   Plus oral hypoglycaemic agents if appropriate

2. If high fasting & daytime sugars & HbA1 above 9% [N.I.C.E] Consider twice daily Humulin M3 or Insuman Comb 25.
   Continue Metformin, stop Sulphonylureas, Glitazones & Gliptins if appropriate

Management

- Any cloudy insulin must be re-suspended thoroughly before each use
- Slower titration of isophane insulins due to variability in absorption
- Ensure dietary issues discussed to reduce risk of weight gain
- Advise on time action of insulin & times more at risk of hypos
- Information about safe driving rules if appropriate

Once daily NPH

- Start at bedtime with dose 8-10units
- If any sign of nocturnal hypo’s (waking early hours feeling hungry, morning headaches, registered glucose reading in night below 5 mmol/l & or symptomatic of hypo) consider reducing insulin dose or change regime, only suggest the addition of a snack at bedtime if there is no concern over potential weight gain.
- Second dose of NPH may be considered at breakfast time
- Home monitoring – daily FBG + one other test at varying times, reduce to daily testing at various times once stable
**Twice daily biphasic isophane insulins**

- Start before breakfast & evening meal. Doses 8-10 units BD
- Advise to give 30 minutes before meal
- Regular eating pattern is important, 4-5 hours after breakfast but may also need mid morning snack especially if very active & snack before bed, ie biscuit, small slice toast. Individual patient circumstances and lifestyle should be considered when using this regime so as not to increase weight gain through additional snacking, consider dietetic referral.
- Continue Metformin, stop sulphonylureas, Glitazones & Gliptins
- Home monitoring – Twice daily at different times during the day to assess action of each component of insulin, reduce to once daily at varying times once stable

**When to consider alternate regimen/insulins**

Change to once daily analogue, BD analogue or basal bolus if:-
- Weight gain due to snacking
- Nocturnal hypos
- Unexplained mid morning hypos
- Patient not adhering to timing issues with BD isophane insulin
- Continued poor control
- Need help from Health Care Professional – refer NICE

References

1. publications.nice.org.uk/type-2-diabetes-cg87/guidance section 1.7.2 insulin therapy
2. http://www.mims.co.uk/Tables/1096962/Insulin-Preparations/

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