Use of insulin in primary care

To the Editor—In an otherwise excellent article on the 'Review on the use of insulin in primary care',[1] I take issue on the recommendation to use neutral protamine Hagedorn (NPH) insulin for the control of fasting hyperglycaemia as a first choice. This has now been superseded by the long-acting insulins such as insulin glargine or detemir. The long-acting insulin analogues have far less tendency to cause hypoglycaemia than NPH. The commonest patient group starting insulin now are the older type 2 diabetics, in whom NPH can cause significant nocturnal hypoglycaemia as a result of its peak action that occurs in the middle of the night. Therefore, I would not recommend the use of NPH nocturnally at all.

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Reference

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Authors' reply

To the Editor—I agree with Dr Ma that there is a higher risk of nocturnal hypoglycaemia with the use of neutral protamine Hagedorn (NPH) insulin than long-acting insulin analogues. However, there was no statistically significant difference in their efficacy with respect to lowering glycated haemoglobin (HbA1c). Therefore, I do not quite agree that NPH insulin should be totally replaced by long-acting insulin analogues as the basal insulin of choice in all patients.

In the 2009 update "Type 2 diabetes: newer agents" of the National Institute for Health and Clinical Excellence (NICE) clinical guideline,[1] it was recommended that, in view of its cost-effectiveness and well-known safety profile, NPH insulin should be preferred as the choice for a basal insulin. It would be more cost-effective to target the use of the long-acting insulin analogues for people with type 2 diabetes who would most likely benefit, such as those whose lifestyle is significantly restricted by symptomatic hypoglycaemic episodes. The 2012 American Diabetes Association and the European Association for the Study of Diabetes position statement on 'Management of hyperglycaemia in type 2 diabetes: a patient-centred approach' also makes recommendations relevant to this issue.[2] These state that costs be a factor to consider in the individualisation of medication classes and combinations in patients with type 2 diabetes. Thus, international guidelines have not precluded the use of NPH or recommended the replacement of NPH by long-acting analogues.

In our experience, many young patients requiring basal insulin could tolerate NPH insulin without experiencing significant hypoglycaemic episodes, while still achieving good glycaemic control. On the other hand, some patients, for example, those on shift duties and elderly subjects at higher risk of hypoglycaemic attacks, would be suitable candidates for the newer long-acting insulin analogues. In conclusion, we are of the opinion that, although the hypoglycaemic risk of long-acting insulin analogues is lower, NPH insulin remains a useful option for patients requiring insulin therapy.

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2. Inzucchi SE, Bergenstal RM, Buse JB, et al. Management of hyperglycemia in type 2 diabetes: a patient-centered approach: position statement of the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD). Diabetes Care 2012;35:1364-79.