What are the potential health risks of long-acting insulin analogues versus NPH insulin?
Research evidence indicates that patients treated with insulin analogues may experience a lower rate of nocturnal hypoglycaemia compared with those using NPH insulin. Interpretation of the results is not clear with respect to either serious hypoglycaemia or to all hypoglycaemias. No differences were observed between the different insulin analogues in terms of the frequency of hypoglycaemia.

Is treatment with long-acting insulin analogues cost-effective compared to NPH insulin therapy?
The use of insulin analogues entails considerably higher medication costs than the use of NPH insulin. Based on reports by public-sector bodies, it appears that long-acting insulin analogues are not cost-effective compared with NPH insulin in the treatment of T1DM or T2DM. Their cost-effectiveness appears to be relatively better in the treatment of T1DM than T2DM.

What factors do patients find important in insulin therapy?
From the patients' perspective, the most important aspects of insulin therapy are a satisfactory glucose balance, a reduction in diabetes comorbidities, few adverse effects, and low cost. The latter is related to the reimbursement system. Patients also find it important to be able to plan and carry out their insulin therapy on an individually tailored basis.

There is insufficient research evidence to establish any differences in the therapeutic effects of long-acting insulin analogues and NPH insulin, and this also applies to Finnish patients with diabetes
The available research evidence is insufficient to establish the actual therapeutic effects of long-acting insulin analogues compared with NPH insulin in patients with T1DM or T2DM. The studies are of a short duration and mainly focus on HbA_{1c} rather than the patients' prognosis, the incidence of diabetes comorbidities or patients' quality of life. In addition, the studies are not fully conclusive in terms of how likely it is that the effects observed could also be anticipated in Finnish patients with diabetes.

Patient summary background
This patient summary is based on an assessment by the Finnish Medicines Agency (Fimea) of the therapeutic and economic value of medicines. During the assessment, Fimea addresses the available clinical and health economics evidence. Healthcare professionals and those needing more detailed information on the matter are encouraged to read the full assessment report (**The therapeutic and economic value of insulin glargine and insulin detemir compared with NPH insulin in the treatment of Type 1 and Type 2 diabetes mellitus.pdf**, in Finnish).

Disclaimer
Assessments of the therapeutic and economic value of medicines are summaries of the health and economic effects of pharmacotherapy, compiled by experts. They do not replace a doctor's or other healthcare professional's own assessment and treatment decisions regarding the best possible treatment of an individual patient.

What is Fimea?
The Finnish Medicines Agency (Fimea) produces and compiles assessments on the therapeutic and economic value of medicines and coordinates the related collaboration. In Finland, medicines must have a marketing authorization granted by Fimea or the European Commission. To obtain a marketing authorisation, the efficacy, safety and adequate quality of the medicine must have been demonstrated. Demonstration of the therapeutic and economic value of a medicine is not a prerequisite for a marketing authorisation. Evidence on the effectiveness and therapeutic and economic value of a medicine is used to support decision-making concerning the use of medicines.

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