- This study aimed to assess the costs and benefits of three alternative second-line treatment strategies for Swedish patients with type 2 diabetes mellitus (T2DM) who fail to reach glycated haemoglobin (HbA1c)≤ 7% with metformin treatment alone: glucagon-like peptide-1 (GLP-1) receptor agonists, dipeptidyl peptidase-4 (DPP-4) inhibitors, and neutral protamine Hagedorn (NPH) insulin.
- Incretin-based therapies (i.e., GLP-1 agonists and DPP-4 inhibitors) are cost-effective options compared to NPH insulin as add-on to metformin.
- At current treatment costs and evidence on treatment efficacy (HbA1c and weight), GLP-1 agonists could be considered cost-effective relative to DPP-4 inhibitors.
- Applying the baseline characteristics from a large sample of T2DM patients from routine practice in Sweden, using utility decrements for a number of complications from a Swedish sample with T2DM, and applying Swedish-specific risk equations for macro-vascular events are main strengths of the current study.
- Including only hypoglycemia as a treatment-related adverse event in the model, and not taking into account the possibility of treatment discontinuation by patients due to lack of data are main limitations of the study.

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