Reviewer #1: Comment

This a very comprehensive review of the different varieties of insulin regimen being used at present and their impact of the quality of life patients using them for type 2 diabetes mellitus. The review is pertinent since the last decade has seen advancements in the insulin preparations which are very nicely captured by this update. It will be better to include the search strategy used to dig literature for this review and mention the repositories consulted for the same.

Response to Reviewer #1:-

Thank you for providing valuable feedback. We have duly incorporated the search strategy summary in our review, specifically on page 18, to investigate the effect of insulin therapy on type 2 diabetes. This section is highlighted in yellow for easy identification. Furthermore, in addressing the effect of different insulin regimens on Quality of Life (QOL), we have outlined our research strategy on page 26, also highlighted in yellow. This addition aims to transparently present the methodology employed for investigating the impact of various insulin regimens on QOL.
Reviewer #2: Comments

Insulin Therapy in Type 2 Diabetes: Insights into Clinical Efficacy, Patient-reported outcomes, and Adherence Challenges. Very Well written extensive article, more subheading needed under Adherence challenges from 30 to 36 pages.

Thank you for your valuable feedback and recommendations regarding the adherence section. We have carefully considered your suggestions and have implemented changes accordingly. Specifically, we have divided the adherence section into two distinct subheadings, one addressing patient-related factors and the other focusing on healthcare professional (HCP)-related factors. This subdivision allows for a more organized and detailed exploration of the various aspects influencing adherence in each category. Additionally, we have suggested practical solutions to address these factors and enhance patient adherence to insulin therapy which is highlighted by yellow color in pages 34-35.

What are the original findings of this manuscript?
This manuscript has no original findings as it is a review article. However, it provides a comprehensive analysis of the influence of insulin therapy on the quality of life (QOL) among individuals diagnosed with type 2 diabetes. Furthermore, the review illuminates the significance of considering patient-reported outcomes (PRO) when examining and evaluating the effects of insulin therapy. It also addresses the crucial aspect of adherence to insulin therapy and explores various factors that can impact adherence.

What are the new hypotheses that this study proposed?
New hypotheses propose that insulin therapy initiation leads to improvements in various QOL domains, supported by enhanced treatment adherence, diabetes-related knowledge, and positive outcomes associated with prolonged insulin use, including improved glycemic control and reduced diabetic complications. Overall, the study
contributes a comprehensive understanding of insulin therapy's complex effects on QOL, shedding light on both positive and negative dimensions and providing valuable insights into factors influencing patients' well-being. The related information is shown on the page 19.

What are the hypotheses that were confirmed through experiments in this study? The research confirms the diversity of outcomes in PROs among diabetic patients using premixed and basal-bolus insulin regimens, emphasizing the importance of considering real-world factors alongside clinical trial findings for a comprehensive evaluation of treatment outcomes. The related information is shown on the page 26.

What are the quality and importance of this manuscript?

The article provides a thorough examination of various insulin types, emphasizing the importance of incorporating Patient-Reported Outcomes (PROs). It summarizes studies investigating the impact of insulin therapy and different regimens on the quality of life (QOL) of individuals with type 2 diabetes. The study's offer a comprehensive overview of insulin therapy advancements, highlighting the diversity in insulin preparations' pharmacokinetic (PK) and pharmacodynamic (PD) properties over the past century. It underscores the considerable variability in treatment approaches, acknowledging the absence of a universally optimal insulin regimen for all type 2 diabetes patients.

What are the new findings of this study?

Not applicable as it is a review article.

What are the key problems in this field that this study has solved:

Not applicable.
What are the limitations of the study and its findings?

We appreciate the reviewer's insightful comments and acknowledge the limitations of our study. As highlighted on page 36, we acknowledge the limitations of the study and its findings. These limitations include the absence of definitive evidence favoring a particular insulin regimen based on Patient-Reported Outcomes (PROs), the heterogeneity of measurement tools used in the included studies, the reliance on data from clinical trials, and the need for further research to understand the complex mechanisms driving adherence behaviors.

What are the future directions of the topic described in this manuscript?

Regarding future directions for the topic, as mentioned on page 37, we recognize the need for further research to explore the psychological aspects of diabetes management and the underlying mechanisms of medication-taking behavior.