

**Once-weekly Insulin Icodec: An emerging treatment option for type 2 Diabetes**Rubab Zahra<sup>1</sup>, Fasiha Tariq<sup>2</sup>, Mushood Ahmed<sup>3</sup>

*Dear Madam,* The treatment of diabetes often necessitates the administration of exogenous insulin, but research shows that patients are less compliant with administering insulin daily. The main hurdle comprises the frequent need for insulin injections, anxiety linked with self-injection, and the intricacy of timing one's insulin administration. Considering that recurrent insulin injections can result in resistance, administering once weekly insulin icodec instead of once daily glargine U100 can be one of the suitable alternatives to handle this problem. Insulin icodec, a basal insulin analogue administered subcutaneously with a half-life of approximately one week, takes three to four weeks to reach a steady state and has been proven efficacious in patients with type 2 diabetes.<sup>1</sup>

A few months ago, the results of the 78-week randomized clinical trial were published. The trial enrolled 492 patients, each in the icodec and glargine U100 groups, who were not treated with insulin previously. The levels of glycated haemoglobin (HbA1c) play a very important role in the management of type 2 diabetes mellitus, and this study showed a significant decrease in HbA1c levels with icodec as compared to the patients who received once-daily glargine. For people taking non-insulin glucose-lowering agents such as glucagon-like peptide-1 agonists and sodium-glucose cotransporters-2 (SGLT2) inhibitors, the concurrent use of icodec was more effective than glargine U100.<sup>2</sup> However, it is important to mention that insulin icodec was associated with slight weight gain. Regarding hypoglycaemic episodes, icodec was linked with level 1 hypoglycaemic but surprisingly played a protective level against level 2 or 3 nocturnal hypoglycaemic. So, overall, the risk of serious hypoglycaemic events was not a major concern with this therapy. Other adverse events, including injection site reactions and hypersensitivity reactions, were not reported.<sup>3</sup> Another interesting observation was the

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reduction in bolus insulin need over time as compared to glargine U100. Once weekly insulin administration showed such better basal insulin coverage that the requirement of bolus insulin was reduced making it a better option altogether.<sup>4</sup>

The growing evidence suggests that insulin icodec can prove effective in the management of type 2 diabetes. Once-weekly administration can improve patient compliance while leading to better glycaemic control and a greater time in range (TIR) with no severe hypoglycaemic risk as compared to once-daily glargine. Taking into consideration the above facts, it is vital to give insulin icodec a chance in treatment of diabetes mellitus for the betterment of patient care.<sup>5</sup>

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MA: Literature review, identifying clinical gaps and writing.