Brief Communication

Physicians' perceptions of a national consensus guideline on insulin therapy: Data from the IMPACT study

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ABSTRACT

Introduction: The effectiveness and impact of the Indian insulin guideline in clinical practice was evaluated by the Improving Management Practices and Clinical Outcomes in Type 2 Diabetes (IMPACT) Study. The study also evaluated the participating physicians' perceptions on the use of IIG versus RCP for management of diabetes. **Materials and Method:** This 26 week multicenter, open label, randomized, prospective study aimed to evaluate effectiveness of Indian insulin guideline (IIG) versus routine clinical practice (RCP) in patients with type 2 diabetes (T2D). **Results:** Out of 426 physicians who completed the physicians' perception questionnaire, 189 (44.4%) felt that it was "easy" to initiate insulin in their patients using IIG. Cost of therapy (52.3%), followed by poor adherence (40.3%), and lack of motivation among physicians (40.4%) were the most important reasons cited for delay in initiation of insulin therapy. Two hundred and thirty three (54.7%) physicians felt that insulin titration was made "easy" in their patients using IIG, while 104 (24.4%) had a neutral approach. A total of 222 physicians (52.1%) felt it was "convenient" applying IIG in their practice, and 239 (67.8%) physicians felt "satisfied" with using IIG for achieving the targeted HbA1c <7%. One hundred and seventy seven (41.5%) physicians felt that there was scope for improving the IIG further by simplifying and revising the titration charts [117 (27.5%)]. **Conclusion:** Primary care physicians in India have perceived the IIG to be easy algorithm to initiate and titrate insulin therapy. These results will encourage the use and facilitate future revision of the guideline.

Key words: Insulin therapy, IMPACT, national consensus guidelines

There are various regimens available for prescribing insulin which include, but are not limited to, basal bolus, split mixed, premix, and prandial therapy.[1] Basal bolus, although termed ideal for people with type 1 diabetes, is often perceived as complex for management of T2DM.[2] In order to provide primary care physicians with a simple algorithm for initiation and titration of insulin therapy, Indian National Consensus Group (INCG), which included 27 experts, formulated a guideline on premixed insulin therapy, which was published in 2009.[3] They recommended premixed insulin analogues because they are simple, safe, easy to start and stay, and a more physiological option for treating type 2 diabetes.[3-5] This guideline was probably the first guideline on insulin therapy in India providing a simple guide for initiation and intensification of insulin therapy. It has been cited as suitable for the existing local needs as it is based on the most popular insulin regimen i.e. premixed insulin.[3]

The Indian National Consensus Group (INCG) decided to validate the effectiveness and impact of the Indian insulin guideline in real life clinical practice. A positive move in this direction was the Improving Management Practices

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and Clinical Outcomes in Type 2 Diabetes (IMPACT) Study. This 26 week multicenter, open label, randomized, prospective study aimed to evaluate effectiveness of Indian insulin guideline (IIG) versus routine clinical practice (RCP) in patients with type 2 diabetes. The secondary objective of the study was to evaluate the physician's perceptions on the use of IIG versus RCP for management of type 2 diabetes. A total of 20653 adults with type 2 diabetes were randomly assigned in 885 diabetes care centers to one of the two types of intervention: Treatment based on the Indian insulin guideline and usual care or the routine clinical practice. For the next 26 weeks, 18179 patients (88.02%) were treated according to the IIG while 2474 patients (11.98%) were treated as per the usual care. Baseline data was recorded at the first visit, and the subsequent efficacy and safety parameters were recorded at weeks 13 and 26. Pre- and post-study physicians' perception questionnaires were filled in by the participating investigators. A reduction of 2.0% in the HbA1c marked clinically and statistically significant achievement with the use of the IIG in patients prescribed premixed analogue therapy. Out of 426 investigators who completed the physicians' perception questionnaire, 189 (44.4%) felt that it was "easy" to initiate insulin in their patients using IIG followed by 114 (26.8%) investigators who felt neutral with respect to ease of insulin initiation in their patients as per IIG. Two hundred and thirty three (54.7%) investigators felt that insulin titration was made "easy" in their patients using IIG, while 104 (24.4%) had a neutral approach. A total of 222 investigators (52.1%) felt it was "convenient" applying IIG in their practice while 105 (24.6%) had a neutral approach. Further, two hundred and eighty nine (67.8%) investigators felt "satisfied" with IIG in achieving the targeted HbA1c <7%, while 83 (19.5%) were neutral in this aspect. One hundred and seventy seven (41.5%) investigators felt that simplification was required as an improvement in the present IIG, and 117 (27.5%) investigators felt that revision of titration schedule should be improved in the present IIG.

It is the first prospective study on validation of a diabetes guideline in the world and one of the largest studies in diabetes involving more than 20000 patients and 1000 participating centers. A simple and easy-to-use insulin guideline results in better reductions in HbA1c over a period of time was the key finding in this study. A reduction of 2.0% in the HbA1c marked clinically and statistically significant achievement with the use of the IIG in patients prescribed premixed analogue therapy. The physicians' perceptions on insulin therapy in India and the role of present IIG in practice provides future perspectives on the development of a revised consensus guideline.

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