

Methodology: This multinational, randomized, 24-week, open-label, parallel-arm study included patients with HbA1c 7.5–10.5 % and fasting plasma glucose ≤ 6.7 mmol/L. LM25 was administered before Band D; insulin lispro was administered before main meal [meal with highest 2-h postprandial blood glucose concentration (self-monitoring) prior to randomization] and insulin glargine at bedtime. Efficacy and safety data were summarized on an observed-case basis and likelihood-based mixed model repeated measures was used to summarize weight change.

Results: Data from 476 patients were analysed (LM25: 236, IGL: 240; B: 91, L: 178, D: 207). Mean (SD) baseline HbA1c was (%; LM25/IGL): B 8.4 (0.7)/8.7 (0.8); L 8.8(0.8)/8.7 (0.7); D 8.7 (0.8)/8.4 (0.7). Numerically, mean changes from baseline in HbA1c were greater in the LM25 than IGL groups (%; LM25/IGL): B -1.2/-0.9; L -1.4/-1.0; D -1.2/-1.0 ($p < .0001$ for all). LS mean (95 % CI) bodyweight increase at 24 weeks was (kg; LM25/IGL): B 1.6 (0.9, 2.3)/0.9 (0.2, 1.7); L 1.1 (0.3, 1.9)/0.7 (0.6, 1.4); D 1.3 (0.7, 1.8)/0.4 (-0.3, 1.0). Overall, mean (SD) rates of documented symptomatic (≤ 3.9 mmol/l) hypoglycemia (per year, LM25/IGL) were: B 7.1 (15.2)/4.0 (7.3); L 6.7 (14.7)/5.7 (13.3); D 7.6 (14.3)/11.7 (19.7); mean (SD) rates of nocturnal hypoglycemia (per year, LM25/IGL) were: B 1.7 (4.1)/0.6 (1.7); L 2.1 (6.6)/1.2 (4.6); D 1.1 (3.0)/3.0 (6.6). Two patients (both LM25 in the D group) experienced severe hypoglycemia; neither required treatment discontinuation).

Conclusions: Intensification with either LM25 or IGL improved glycaemic control regardless of main meal. Nothing suggested there was a marked difference in overall study results when main meal was considered, although potential differences in hypoglycemic episodes should be considered when individualizing insulin therapy.

Description of practices related to insulin injection therapy and sharp disposal among patients attending the diabetic clinic, Colombo North Teaching Hospital, Sri Lanka

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Introduction: Diabetic patients on insulin therapy are compelled to use sharps such as insulin needles and lancets on a regular basis. As a result thousands of used sharps and bloodstained materials are generated daily by them. While there is a huge concern over sharps disposal practices in healthcare settings, the sharps disposal practices of diabetic patients living at home has been poorly documented.

Methodology: Randomly selected sample of 158 diabetic patients were obtained from the diabetic clinic, Colombo North Teaching Hospital. Data collected using an interviewer administered questionnaire and clinic records.

Results: Sample population was aged between 21 and 90. Mean age 60. Majority had used insulin for more than 1 year 131/158 (83 %). Very few 5/158 (3 %) used the insulin pen while majority used syringes 153 (96.8 %) to inject insulin. Only 10 (6 %) regularly checked blood sugar using needles/lancets. Majority 132/158(84 %) injected insulin more than twice per day and ≥ 50 % used the same needle more than 6 times, for more than 3 days. Majority 150/153(98 %) of the syringe users recapped the needle. A significant number 73/158(46 %) also involved others when injecting and disposing needles. Two patients reported knowledge of an accidental needle-stick injury having occurred, both in cases where a family member routinely assisted with the injections.

Used needles/pens were disposed in to a common household garbage bin, sharps container, toilet pit, garbage dump and indiscriminately by 66(42 %), 9(6 %), 8(5 %), 4(8 %), 11(7 %) respectively. Some 15/158 (9.5 %) have collected sharps since beginning without disposing. Many respondents 147/158 (93 %) had received no information on how to dispose of their sharps. Those who recalled receiving information were more likely to dispose of their sharps safely $p < 0.05$.

Conclusions: Insulin-dependent diabetic patients are not educated on safe sharps disposal methods, leading to unsafe disposal of needles hence putting people at risk for injury. Appropriate education on the correct disposal of sharps should be an integral part of their diabetic counselling. A national program for disposal of sharps at homes should be implemented.

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Evaluation of insulin self-administration technique among patients with diabetes at tertiary care centre

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Description: Approximately 1.2 million Indians inject insulin. Due to extreme temperature conditions, storage of insulin is an important issue in India. Incorrect injection technique leads to poor glycaemic control. Reusing the needle can cause pain, bleeding, bruising, chances of breaking off and lodging under the skin, dosage inaccuracy, and lipohypertrophy. Besides proper sharp disposal is essential to prevent health hazards. Studies evaluating knowledge and practice of insulin injection are lacking in India.

Aim: The aim of this study is to assess the knowledge and practice of storage, administration of insulin and disposal of sharp waste.

Method: It was prospective descriptive study done at department of endocrinology, JIPMER during April–June 2015, patients receiving insulin prescription were assessed by structured interview.

Results: Among the 210 patients, mean duration of diabetes was 8 year with mean duration of insulin treatment was 4 year. 92.38 % were adults and majority were suffering from type 2DM (82.86 %). There was male preponderance (male 61.42 %), most of the patients were from rural area (55.72 %) and had poor education. Seventy-nine percent recollected that they were informed prior regarding how to store and administer insulin. Only 14 % patient recollected that they were informed regarding disposal.

74.75 % were storing insulin correctly either in refrigerator or in earthen pot. Among those mixing insulin prior to injections only 55.55 % were mixing correctly. Forty-nine percent were making skin fold correctly. Fifty-seven percent were administering insulin correctly. Only 33.66 % were following correct insulin- food time gap. Ninety-eight percent were using needle more than one time. Ninety-two percent were disposing the sharp into general household waste.

Conclusion: There is a gap between recommendations and actual practice. Efforts need to be taken to educate patient regarding proper storage use and disposal of sharp waste.