

Jothydev Kesavadev, Arun Shankar, Ashwin David Ashok, Lida Skaria, Akhila Lekha Anilkumar, Geethu Sanal, Gopika Krishnan, Lakshmy Ramachandran, Sunitha Jothydev

JOTHYDEV'S DIABETES RESEARCH CENTRE, Trivandrum, India

www.jothydev.net, www.research.jothydev.com, jothydev@gmail.com

BACKGROUND

Currently, in India, there are neither reimbursement policies nor government supply of free Insulin Pumps (IP) to T1D children. A good majority of these children does not have the fortune to live longer like those without the disease. P Kesavadev Trust type 1 diabetes Project (KT1DP) Sweet Stars was initiated by us with a humanitarian objective to provide a lifesaving technology to economically challenged T1D children by providing free IPs, accessories etc. With the collaboration of various stakeholders, we succeeded in providing IPs and accessories totally free of cost to some of the most deserving T1D candidates attending our diabetes care centre.

AIM

To identify the challenges faced by the diabetes team while implementing a humanitarian project of providing free insulin pumps, accessories, insulin, glucometers, strips, etc. and to propose possible solutions. Also to assess the effectiveness of IP Therapy (IPT) on achieving glycemic control as well as in improving the quality of life (QoL) of economically challenged children with uncontrolled T1D.

METHOD

Economically challenged T1D children who were uncontrolled on MDI were provided with IPs and accessories completely free of cost as a part of our KT1DP initiative. Clinical parameters noted in these individuals (n=4, 2 boys and 2 girls, mean age= 16.3±4.6 years, mean T1D duration= 8±1.73 years, mean time spent on IPT as on the date of data retrieval= 3±2 months) during pre and post pump sessions were compared. Experiences shared by them were assessed to understand the utility of this technology in improving the overall QoL. Challenges faced by our project team while implementing this selfless initiative was evaluated to come up with possible recommendations.



RESULTS

All of the patients achieved a significant drop in HbA1c as noted from their latest clinical visit after IPT initiation (11.07±0.83% to 9.5±0.83%, p=0.0265). Patients met with lesser events of hypoglycemia and no events of DKA after shifting to IPT and all of them recounted a positive experience. Challenges faced by KT1DP team while implementing the project and the possible solutions identified by the team members to address these challenges are provided below.

DISCUSSION

Many T1D patients require advanced technologies to lead a normal life. In developing countries where even insulin is not available, IP is definitely a farfetched dream. Our results reinforce that patients who are motivated and take efforts to learn the techniques can undoubtedly reap the benefits of IPT. Costs associated should never be a hindrance towards achieving the best treatment. Government and charity organisations should recognise the significance of such lifesaving modalities and implement appropriate reimbursement policies. Extra time and resources for continuous training and troubleshooting especially for those uneducated parents will remain a major challenge. The project team will have to face an additional risk of bearing the responsibility of mishaps arising due to the inappropriate use of the technology. Such untoward instances can create suspicion about the merits of such technologies. Patients and their caregivers must be educated on the advantage they are at with regard to obtaining such a costly treatment at no cost, which is essentially meant for 'gifting a life'.

CHALLENGES FACED BY THE PROJECT TEAM IN PROVIDING FREE CARE	RECOMMENDATIONS PUT FORWARD TO ADDRESS THE CHALLENGES
<ul style="list-style-type: none"> ▶ A rather disappointing fact that whenever something is provided free, there is more chance of a misuse (eg: patients changing the accessories more frequently than the recommended 3 days) ▶ Team had to put in extra time and effort with the patients as well as their caregivers to make them used to the device ▶ Compared to usual affordable educated parents, it took almost 10 times extra time and effort for training and supporting these subjects especially during the first 2 months. Team also had to face the extra burden of making them aware of their added responsibility after being on an IP and significance of the same in providing better quality of life 	<ul style="list-style-type: none"> ▶ Conducting frequent awareness cum training sessions (eg: recommending appropriate frequency to change the accessories etc.) ▶ A dedicated pump team with long experience to assist the patients and their caregivers in various aspects of IPT was set up ▶ To dedicate more time towards training, patients were allowed to avail more number of inpatient stays. A checklist was provided to them along with easy troubleshooting tips and training sessions were repeated.