



RESALE OF REFURBISHED INSULIN PUMPS, IS IT POSSIBLE?

Dr. Sanjay P Gandhi*

Assistant Professor, Department of Medicine, Symbiosis Medical College for Women, Symbiosis International University, Pune. *Corresponding Author

Dr. Sanskriti Gandhi

MDS 3rd Year, MGM Dental College and Hospital, Panvel, Navi Mumbai.

ABSTRACT There is no doubt that CSII with Insulin pump Therapy has proved superior to MDI (multiple Dose Injection) therapy in Type1DM as well as Type2DM patients. Economics has been a very important issue while advocating the Pump to either patients, type 1 or type 2 Diabetes Mellitus patients. Out of 9 (Nine) patients using Insulin Pumps in our centre GANDHI CLINIC, PUNE, INDIA, there are 5(FIVE) Type 2 patients and 4(FOUR) Type 1DM patients. Two Pumps are deposited at my Clinic due to the sad demise of the Type2DM patients. The relatives of these patients do wish to sell these pumps with some depreciation price i.e. at lower price than the new one. One patient (type2DM) has stopped using the Insulin pump due to the adverse advice from another healthcare provider. This person with Diabetes also wants to sell the pump at some discounted price. As per my survey in the Metro city of Pune (INDIA) approximately 700 insulin pumps are sold, out of these at least 5-7% of total pumps are not being used anymore. The unused pumps are at least 50 in number in this city of PUNE. Total number of pumps used in INDIA is 70000-72000 pumps approx. The total unused pumps by the patients in INDIA could be about 3000 to 5000 pumps approximately. This revenue loss in this resource constrained country could be in millions of Dollars. This scenario may be same in many developing countries wherein the healthcare budgets are limited. In INDIA, Insulin Pump Therapy is not yet covered by Insurance policy of all the patients. Since the pumps are usually purchased by pocket expenses or with Loan or selling some assets like land or Gold, the relatives of the patients are not wrong in expecting some financial recovery after losing the most important thing ie the PERSON. This is also to be considered if patient does not want to continue the use of pump due to any reason. We do see refurbished cars sold and there are eligible and deserving candidates available who cannot purchase a new model of the Car. I am sure INDIA is an important market of Diabetes Technology related Products like Insulin Pump and CGMs. This article is aimed at KOLs in Diabetology and Economists in the world for a basic policy change in favour of the patient care and economics.

KEYWORDS : Technology in Diabetes, Insulin Pump, Resale

INTRODUCTION:

The prevalence of Diabetes in India is ever increasing. Newer figures are rising at alarming pace in spite of developments and research in newer and safe treatment modalities in pharmacology and technological advances in Insulin therapy and the monitoring of glycaemic profile viz. sensors. Type 1 DM patients do require insulin as mainstay but many of Type2 DM patients would require insulin after oral hypoglycaemic agents fail to control the blood sugars. The modalities of insulin delivery can be syringes and vials, insulin pens or the Insulin Pump Therapy.

AIM:

Can we change the Economics of insulin pump Therapy in India and other developing countries? We want to find the answer to this question, thereby making the pumps available to the needy T1DM and T2DM patients at much lower prices than the present costs.

METHODS:

We have studied the total nine patients using the Insulin Pumps at our centre, GANDHI CLINIC in Pune, India [9]. Out of nine patients four are IDDM and others are T2DM. We have also tried Insulin Pump Therapy in a retired teacher who is 72 years old (T2DM). This lady is suffering from Frailty due to age and tremors but has been using pump successfully for last 5 years with SMBG.

Out of 9 patients, three Insulin Pumps are lying at our clinic, two pumps due to sad demise of the patients and one pump due to the adverse advice by another doctor. These pumps are bought by the patients through self finance.

In cases of the death of the patients (total two), the relatives of the patients are at double loss, moneywise and person loss. The relatives have also spent from pocket during the last hospitalisation of these patients. To recover from the financial loss, the relatives of the patients are expecting some money recovery from the sale of these pumps.

The patient who has stopped the use of the pump with advice from another healthcare provider also wants to sell the pump and recover some cost of the pump. The manufacturer of the pumps have suggested to Donate the pumps to some needy patients, but repurchase of the pump and then resale after refurbishment is not possible at present date.

RESULTS:

Many healthcare professionals compare the CAR with PUMP. Frequently, we say if someone can afford a car then he would easily afford the Insulin Pump. In India, we have a scheme to Buyback and refurbish the Used Cars by the Manufacturer and the Resale of the same car is possible at a much lower cost than the cost of the new car of same brand and the manufacturer. Manufacturer of the Insulin Pumps can repurchase the Insulin Pumps from these patients who have stopped the use of the pumps at some structured cost. These refurbished pumps can be available to the needy and willing T2DM or T1DM patients at lower price with assurance from the manufacturer.

DISCUSSION:

Since the fact prevails in India and developing countries that availability of Insulin is a difficult task at times, Insulin Pump Therapy is a farfetched dream. There must be more than few thousand Pumps in India which are resalable because of being out of use. These pumps can be refurbished by the Manufacturer and can be made available to the needy and willing patients of T1DM as well as T2DM patients at a much lower cost in these resources constrained countries. We want the whole world brain volume to think on this sensitive issue. I want to describe the famous repurchase scheme from the Maruti Suzuki, India's largest car manufacturer being operated successfully presently. If some such scheme is not formulated by the manufacturer of the pumps, patients would be found selling their pumps and pacemakers on ie, online (already few pumps are available).

MARUTI SUZUKI TRUE VALUE:

Maruti Suzuki True Value is India's largest certified used car dealer network, with around 763 outlets spread across 550 cities. This system is operated by the manufacturer of the largest selling car in India i.e. MARUTI SUZUKI.

Maruti Suzuki True Value system and process ensures that transactions made for used cars are fair and transparent. Every vehicle bought under Maruti Suzuki True Value is inspected and certified by Maruti Suzuki engineers. True Value category cars are refurbished in state of art workshops using Maruti Genuine Parts and by skilled technicians. These cars are then sold through Maruti Suzuki True Value outlets with one -year warranty and three free services. Simply put, it's the best place to buy, sell or exchange a used car. Medtronics is the only supplier of Insulin Pumps in India. It would be more easy and MONOPOLY business for the Medtronics.

Plan of Resale of Insulin Pump:

If Warranty is offered By Company it is usually 3-4 years. If the Pump needs to be repurchased, calculate the X cost like reduced by 25% per year from First Sale of the Pump. After OFFICIAL REFURBISHMENT the PUMP can be resold at the REASONABLE premium, as the cost of refurbishment. ADVANTAGE: The refurbished pumps would be available to my needy and willing T1DM & T2DM pts at the much lower cost than the Present cost. Many of my T2DM pts can use pumps for shorter time like Day-care procedures and sick-Days care like chemotherapy days or the ophthalmic surgical interventions of shorter or longer duration and achieve good results with well controlled glycaemic variability

CONCLUSION:

To improve the glycaemic variability in Type1 DM and Type 2 DM patients with use of Insulin Pump Technology, all healthcare provider should consider more and more use of this advanced technology. THE INSULIN PUMP IS VERY USEFUL FOT ELDERLY T2DM PERSONS WITH Tremors & COMORBIDITIES.

To increase the use of Pumps in DM patients the cost of the pumps should be in affordable range in INDIA and many developing countries. The dignitaries of various Diabetes Associations should unanimously discuss and plead the manufacturer with adequate evidence. The concept of Official Repurchase and Refurbishment need to be understood and implemented. After this only, many of T1 and T2 DM patients would be benefitted with use of this very wonderful and clinically satisfying technology. The Maruti Suzuki True Value is only a corollary which can act as a template.

Table: Details of INSULIN PUMP using Patients on OPD basis :

SR NO	PATI ENT NAME	AGE	SEX	DM AGE AND IDDM	DATE OF INST A.	INDIC ATION	JOB PRO FILE	IN USE or NOT	WHY NOT IN USE
1	RBK	27	F	8 yrs. IDDM		H/O-accident, Hypoglycemia	Doctor	Yes	
2	JHK	10	F	6 yrs IDDM	02-10-14	Brittle Diabetes	Student	Yes	
3	RSP	38	M	5 yrs	04-11-14	Uncontrolled DM		No	Expired
4	Dr RRR	26	F	3 yrs IDDM	23-11-15	Uncontrolled DM	Doctor	YES	
5	Dr NJN	64	M	23 Yrs	24-07-15	Uncontrolled DM	Doctor	NO	Expired on 4-11-2015 IHD, DM, CKD, HTN, Foot infect.
6	PSM	56	M	23 Yrs	30-08-16	Uncontrolled DM, taking insulin 3 times a day	Business	No	Advised by other doctor
7	AVK	72	F	31 Yrs	27-07-17	Fluctuating BSL	Retired	Yes	
8	SNG	64	F	24 Yrs		Fluctuating BSL, hypoglycemia	Housewife	Yes	
9	SYL	13	M	2 yrs IDDM	16-12-18	Uncontrolled DM	Student	Yes	

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