

"Future of healthcare requires new approaches & innovations"

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By : Rahul Koul - April 10, 2019



Medtronic began its operations in India during the year 1979. With over 1100 employees, India Medtronic is a wholly-owned subsidiary of Medtronic Plc, one of the world's largest medical devices manufacturer. Headquartered in Mumbai, it has its offices at 10 major cities in India besides offices in neighbouring Dhaka and Colombo. The diabetes group of the company contributes \$1.9 billion revenue globally and includes therapies like Continuous Glucose Monitoring, Insulin Pump Therapy and others.

In an exclusive interaction with the BioVoice, Mr Ravi Kaushik, Director – Diabetes, India Medtronic shared his views on the diabetes scenario in India, technologies developed by the company to tackle it, and other activities in the country. Read on:



How do you view the Type 1 diabetes situation in India currently? What are the reasons behind this?

The prevalence of diabetes and prediabetes in India is believed to be 10% and 15%, respectively with Type 2 diabetes constituting the large majority of this. India is estimated to be home to over 97,700 Type 1 diabetic children, but the focus of India is largely towards Type 2 diabetes and Type 1 diabetes (T1D) often gets ignored. However, the lack of a proper registry on T1D in India makes it difficult to understand the actual burden of the disease.

The Type 1 Diabetes is an autoimmune disease in which the immune system destroys the insulin-producing cells in the pancreas, leaving children painfully dependent on insulin injections for survival. According to data, the average prevalence of T1D in India is believed to be 10.20 cases per 100,000 persons each year with a 3%–5% per annum increase in the incidence of T1D.

In spite of a large number of people living with diabetes, India is not a diabetes-friendly society and there are several myths around the disease or its management. The Type 1 Diabetes can only be managed by taking care of insulin levels in the body, where injecting insulin through syringes is the most common way out. But the process of injecting insulin at least 2 to 4 times a day is full of stigma, complications and pain. Often children and people are treated unfairly at school or at work, or in other aspects of daily life just because they have Type 1 Diabetes. Most children with diabetes have Type 1 diabetes due to deficiency of insulin and not because of their lifestyle or eating pattern. These children are completely dependent on insulin and would die without it. They also frequently develop hypoglycemia (low sugar levels), which is another life-threatening condition.



What kind of technological innovations has been developed by Medtronic to tackle the diabetes situation?

Medtronic is committed to change the way people manage diabetes and aims to transform diabetes care by expanding access, integrating care and improving outcomes, so people living with diabetes can enjoy greater freedom and better health.

Our latest insulin pump therapy can help you mimic the way a healthy pancreas function. An insulin pump is a small device (about the size of a cell phone) worn externally that delivers insulin through a tiny plastic tube inserted underneath the skin. The insulin pump provides a constant rate of insulin – called basal – to keep glucose levels in the desired range. At the

touch of a few buttons, patients can also deliver bolus – to cover for every meal intake. The pump delivers precise doses of rapid-acting insulin 24 hours a day, to match your body's needs.

Medtronic's latest offering in the diabetes management space is the real time smart Continuous Glucose Monitoring (CGM) technology that enables patients to monitor their glucose levels 24 hours a day through a sensor that sends the readings to an insulin pump. It is the first and only CGM that can alert patients of potential high or low sensor glucose levels upto 60 minutes in advance. When patients are using CGM technology and insulin pump together, they communicate with each other wirelessly. This is also enabling the doctors to optimize their therapy for patients. The advanced CGM technology also offers the option of adding upto five guardians who would get real-time alerts of their loved one's condition. CGM provides a more complete picture of blood glucose levels by giving early warnings of lows and highs that HbA1C and fingerstick testing alone cannot always identify. In fact, use of CGM has been shown to lower HbA1c levels and reduce the time of hypos. The benefits like ease of use and accuracy make it ideal for T1D and T2D patients.

Medtronic also offers a helpline for the patients which helps resolve any technical queries the patients may have about the product's usage.



What about the affordability and accessibility of your products? How are they different from what competition is offering?

Currently, there are no other players in the insulin pump therapy segment but there are a few companies who offer CGM in India. Yes, we acknowledge affordability is a very important factor while choosing a therapy but so is awareness and accessibility.

Despite the technological advancements and work on the ground, large masses are unable to grab benefits of innovation in T1D management. It is important to declare Type 1 Diabetes as a disability, which will help thousands cope with their struggling lives. The disease is considered as a disability by many countries and special assistance is provided by the state to those suffering from it. There is a need for a policy intervention to cover patients for their therapy, provide them a standard of care and life that continues till they are adults and ready to earn and support themselves and their families. This is already being followed in other countries like Chile and Brazil.



Are there any awareness and CSR programs run by the company? Please share your experiences?

Yes, we work in close coordination with various diabetes patient groups providing education materials and first-hand education through healthcare professionals; getting them trained on the disease and its management.

There are Type 1 and Type 2 communities in our country and we support them by giving grants for their education needs, for them to conduct workshops within their community, educating them on the condition, carbohydrate counting workshops, workshops in schools on educating them on the condition and how to support such children. These groups utilize a part of the grants in providing insulin supplies to the poor children in their group.



What kind of YoY growth is the company expecting from the diabetes segment? Are there any new products in the pipeline?

The future of healthcare requires new approaches and innovations. Medtronic is an industry leader in technology through Innovation, Invention and Disruption. By making incremental changes to the existing insulin pump technology we have disrupted the market by providing the latest pump therapy that provides more precise insulin delivery and lifestyle flexibility for people with diabetes, coupled with built-in CGM that is clinically proven to provide better glucose control, which reduces the risk of diabetes complications.

Medtronic as a company focuses a lot on economic value. We believe that to make healthcare solutions sustainable, healthcare sector must deliver the economic value to all the stakeholders. We have in the past and will continue to evaluate market-appropriate new product opportunities for India.