Neuromodulation Devices Market Research Report – Forecast to 2023

Market Scenario

The global neuromodulation devices market is expected to gain eminence over the forecast period (2018–2023). It is projected that the neuromodulation devices market is anticipated to register a CAGR of 11.2% during the forecast period of 2018–2023.

Neuromodulation is a prominent technology which is used to stimulate specific neurological sites or alteration of the nerve activity by using electricity or chemical agents in the body. Most of these devices are using electrical stimulation. Electrodes are attached to the brain, spinal cord, or peripheral nerves for carrying out the procedure. These devices are used to enhance the quality of life or treat the people suffering from conditions such as tremor, fecal and urinary incontinence, chronic pain, dystonia Parkinson’s disease, epilepsy, and other psychological disorders. As per the Alzheimer’s Association in 2017, 5.5 million Americans had Alzheimer and about 5.3 million of this patient population’s age was 65 years or more. Moreover, it was estimated that most of the increase in the geriatric population would be witnessed in the developing countries. Government and private initiatives for increasing awareness regarding rising occurrences of neurological disorders and mental health fuel the market growth in the Asia Pacific region. The Pharmaceutical and Medical Devices Agency in Japan has approved several neurostimulators for pain management since 2010 such as Genesis Spinal Cord Stimulation (SCS) system and Eon Mini Precision Spectra by Boston Scientific and St. Jude, respectively. The rise in the approval rate of neurostimulators by the Pharmaceuticals and Medical Devices Agency (PMDA) has driven their adoption in the Japanese market.

Factors such as extended new indications and target applications coupled with the robust product pipeline offered by players and increasing prevalence of neurological diseases are expected to drive the growth over the forecast period. Furthermore, the expansion in emerging economies is expected to create significant growth opportunities for players operating in the neuromodulation market. Factors such as high entry barriers for new players owing to high capital investment, lack of trained professionals, stringent government regulations, and unfavorable reimbursement scenario are some of the factors restraining the growth of the market.

Regional Market Summary

The Americas is expected to dominate the global neuromodulation devices market over the forecast period owing to a surge in the end use of devices along with the increase in awareness among people and high prevalence of conditions such as epilepsy, chronic pain, and Parkinson’s disease. The American region contributed nearly 55% of the total global neuromodulation devices market in 2017.

Europe is the second largest market after Americas owing to the growing introduction of new and better neuromodulation devices and increasing prevalence of diseases.

Asia Pacific is the fastest growing region for neuromodulation devices due to emerging economies such as China and India. Japan holds the largest revenue share in the Asia Pacific
region. China is poised to be the fastest growing market on account of its large manufacturing base, large population, growing economic development, and booming internal demand. India is likely to witness rapid growth in the future due to rising expenditure in the healthcare sector and growing awareness regarding mental disorders.

The Middle East and Africa holds the lowest share in the global neuromodulation devices market due to growing instances of outsourcing the manufacturing of neuromodulation devices which is expected to inhibit development costs while focusing on the development of safer technologies. The initially entering company will have a strong position in Africa as it is likely to be difficult for any newcomer in the region to dislodge an established player due to low margin on low-cost products and smaller volume of the products.

Key Players

Some of the key players in the global neuromodulation devices market are St. Jude Medical, Inc. (U.S.), LivaNova PLC (UK), Boston Scientific Corporation (U.S.), Aleva Neurotherapeutics SA (U.S.), Bioness Inc. (U.S.), EnteroMedics Inc (U.S.), Nevro Corporation (U.S.), NeuroPace Inc. (U.S.), Synapse Biomedical, Inc. (U.S.), Neurosigma, Inc. (U.S.), Neuronetics, Inc. (U.S.), Cyberonics, Inc. (U.S.), BioControl Medical (Israel), Accelent (U.S.), DynaMD (U.S.), Soterix Medical, Inc. (U.S.), and others.

Segmentation

The global neuromodulation devices market is segmented by type, type by application, biomaterial, and end-user.

Based on type, the global neuromodulation devices market is classified as internal neuromodulation and external neuromodulation (non-invasive).

Internal neuromodulation is further divided into Spinal Cord Stimulation (SCS), Deep Brain Stimulation (DBS), Vagus Nerve Stimulation (VNS), Sacral Nerve Stimulation (SNS), and Gastric Electrical Stimulation (GES).

External neuromodulation (non-invasive) is further classified as Transcutaneous Electrical Nerve Stimulation (TENS), Transcranial Magnetic Stimulation (TMS), and Respiratory Electrical Stimulation (RES).

Based on type by application, the global neuromodulation devices market is classified into Spinal Cord Stimulation (SCS) which is classified as chronic pain management, Failed Back Syndrome (FBSS), and ischemia. Deep Brain Stimulation (DBS) is classified into Parkinson’s disease, tremor, depression, and others. Sacral nerve stimulation is divided into urine incontinence and fecal incontinence. Vagus nerve stimulation is divided into epilepsy and others. Gastric electrical stimulation is divided into gastroparesis and obesity. Transcutaneous electrical nerve stimulation is divided into treatment-resistant depression and others. Repetitive transcranial magnetic stimulation is divided into depression and migraine headache. Respiratory electrical stimulation is divided into spinal cord injury and others.

Based on biomaterial, the global neuromodulation devices market is classified as metallic biomaterials, polymeric biomaterials, and ceramic biomaterials.

Research Methodology

Sources: Annual reports, Press release, White paper, and Company presentation

Based on end-user, the global neuromodulation devices market is classified as hospitals,
clinics, home healthcare, and others.

**Intended Audience**

- Pharmaceutical Companies
- Neuromodulation Device Manufacturing Companies
- Research and Development (R&D) Companies
- Government and Independent Research Laboratories
- Contract Research Organizations (CROs)
- Medical Research Laboratories
- Academic Medical Institutes and Universities

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