Nuclear Medicine/Radiopharmaceuticals Global Market - Forecast to 2022

Description:
Over the past 50 years nuclear medicine sector has displayed a strong link between investments in chemistry and development of radionuclide's and radiolabeled compounds. This advancement has majorly impacted the health care practice. In the present scenario nuclear medicine is considered to be one of the diagnostics and therapeutic modality technique for probing, tracking and treating disease-related tissue function, progression and treatment response.

Non-invasive nuclear medicine imaging technique provides functional information at both molecular and cellular level and helps measuring the uptake and turnover of target-specific radiotracers in tissue.

Radioisotopes are used in a wide variety of applications like oncology, cardiovascular and neurological disorders. But in recent times, advancements in the field of nuclear medicine and radioactive tracers have emerged to provide few practical methods for studying the limited metabolic activities of bones and teeth, hence has found a role in dental science research.

The global nuclear medicine/radiopharmaceutical market is expected to reach $9,275.3 million by 2022. Nuclear medicinal market is mainly classified into type (diagnosis & therapeutics), application and end-users. The global nuclear medicine market by diagnosis is further divided into SPECT and PET while therapeutics market is segmented into alpha radiation therapy, beta radiation therapy and brachytherapy.

The SPECT and PET diagnostics market is further divided into isotopes and application. SPECT market by isotopes includes technetium (Tc-99m), thallium (Tl-201), gallium (Ga-67), iodine (I-123), samarium (Sm-153), yttrium (Y-90), rhenium (Re-186) and others. SPECT by applications are classified into cardiology, gastro intestinal, oncology, nephrology, neurology, inflammation, thyroid glands, lymphology and others. The PET diagnostic market by isotopes involves fluorodeoxyglucose (18F-FDG), gallium (Ga-68), rubidium (Rb-82) and others. PET applications are segmented into cardiology, oncology, neurology, inflammation, thyroid and others.

The alpha radiation therapy includes actinium (Ac-225), astatine-211 (At-211), lead (Pb-212)/bismuth (Bi-212), radium (Ra-223), radium-224 (Ra-224), thorium-227 (Th-227) and others. The isotopes considered in beta radiation therapy are erbium (Er-169), iodine (I-131) lutetium (Lu-177), rhenium (Re-186), samarium (Sa-153), strontium (Sr-89), yttrium (Y-90) and others. The final therapeutic segment brachytherapy involves cesium (Cs-131), iodine (I-125), iridium (Ir-192), palladium (Pd-103) and others

The nuclear medicine market end-users include medical, academic research laboratories and industries. The end-users by medical further segmented into hospitals and diagnostic centers.

The nuclear medicine/radiopharmaceutical market includes stable isotopes section as well which is classified into isotopes and applications. Isotopes considered are carbon (C-13), deuterium (D2), oxygen (O-18), nitrogen (N-15), sulphur (S-32) and others. The stable isotopes have application in diagnostics and therapy, pharmaceutical companies, research section and industrial sector. The leading players of this market are Cambridge Isotope Laboratories (U.S) and Isotec Inc. subsidiary of Sigma Aldrich (U.S.).

The nuclear medicine/radiopharmaceuticals market is expected to grow at single digit CAGR during 2015 to 2022. The factors driving the growth of this market are increased application of radiopharmaceuticals, rise in public awareness, usage of hybrid imaging, abundance of radio pharmaceuticals, technological advancements; alpha radio immunotherapy based targeted cancer treatment and wide range of available products likely to propel the nuclear medicine market.

In addition to this, increasing need in emerging markets, production of radio pharmaceuticals from cyclotrons, efficient diagnosis and treatments, emerging radio isotopes, increasing therapeutic application areas and replacement of old/traditional equipment are some of the opportunities that are propelling the growth of the market. However, regulatory issues, high cost and supply shortage of isotopes, shorter half life of radiopharmaceuticals, and threat from traditional/alternative diagnostic procedures are hampering the growth of the market.

The threats for the nuclear medicine/radiopharmaceuticals market include huge capital investment and
shortage of qualified technicians. The major problem area of nuclear medicine market is closure of reactors.

The nuclear medicine/radiopharmaceuticals global market is a highly competitive market and all the existing players in this market are involved in developing new and advanced products to maintain their market shares. Some of the key players of the nuclear medicine market are Bayer Healthcare (Germany) Cardinal Health Inc. (U.S.), Cambridge Isotope Laboratories (U.S.), GE Healthcare (U.K.), IBA Group (Belgium), Isotec Inc. (U.S.) Lantheus Medical Imaging (U.S.), Mallinckrodt Plc (Ireland), NTP Radioisotopes (South Africa), Nordion Inc (Canada) Siemens Healthcare (Germany) and Taiyo Nippon Sanso Corporation (Japan).

The report provides an in depth market analysis of the above mentioned segments across the following regions:

- North America
- Europe
- Asia-Pacific
- Rest of the World (RoW)

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