GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 3661
TO BE ANSWERED ON 17.03.2021

NUCLEAR MEDICINES

3661. SHRIMATI NAVNEET RAVI RANA:

Will the PRIME MINISTER be pleased to state:

(a) the steps taken/being taken by the Government to share the technology of production of a variety of nuclear medicines;

(b) the measures taken by the Government for production of medical isotopes as a part of Atmanirbhar Bharat initiatives for the Department of Atomic Energy (DAE); and

(c) the efforts made/to be made by the Government to make India self-reliant in key radio isotopes used in medical and industrial applications?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

(a) Board of Radiation and Isotope Technology (BRIT), an industrial unit of Department of Atomic Energy (DAE), plans of sharing one of its facilities partially with private agencies for the weekly production of "Column Chromatography Generator Production".

The Technology for the Production of important radiopharmaceuticals, like 18F-FDB for various cancer imaging and 18F-NaF for bone cancer imaging is available through Technology Transfer.

(b) As a part of Atma Nirbhar Bharat the following initiatives have been taken by DAE:

(i) The 30 MeV Medical Cyclotron at Variable Energy Cyclotron Centre (VECC), Kolkata is operational and carrying out regular commercial production and delivery of radiopharmaceuticals like, FDG (^{18}F) and Sodium Fluoride (^{18}F-NaF) by BRIT. The production of Gallium-68 (^{68}Ga), Gallium-67 (^{67}Ga), Thallium-201 (^{201}Tl) based radiopharmaceuticals have also been done at Medical Cyclotron Facility of VECC, Kolkata. The ^{67}Ga and ^{201}Tl based radiopharmaceuticals, were hitherto imported.

(ii) BRIT has taken up two projects viz. Advanced Facility for Radio Pharmaceuticals Production (AFRP) and Fission Moly Project (FMP) for production of medical isotopes in large scale. Under AFRP project, BRIT is augmenting I-131 capsule production and I-131 MIBG production for diagnostic & therapeutic application for cancer treatment. In addition, the project is also contributing for GMP compliance of various facilities. FMP project has the capacity to produce 300 Ci/week (6day pre-calibrated) HSA Mo99 (High Specific activity) as API (Active Pharmaceutical Ingredient) for the large-scale production of Mo99-Tc99m Column chromatography Generator. Presently HSA Mo99 is an import dependent API.

(c) The efforts made by the Government to make India self-reliant are as under:

A research reactor dedicated to medical isotope production is envisaged to be executed under Public Private Partnership. In this partnership, Government through the Department of Atomic Energy, plans to extend support to the investors for processing and production of radioisotopes and radiopharmaceuticals both for diagnosis and therapy of cancer as well as functional evaluation of organs.

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