

PARLIAMENT QUESTION: SHORTAGE OF MEDICAL RADIOISOTOPES

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Board of Radiation & Isotope Technology (BRIT) is a Constituent Unit of Department of Atomic Energy which provides products and services based on radiation & isotopes for applications in healthcare, agriculture, research and industry.

Names of key medical radioisotopes	Quantity	Whether this domestic production is sufficient to meet national demand (Yes or No)	Details thereof
Lutetium-177 (Lu-177)	1000-1200 Curie	Lu-177: Yes	BRIT fulfills ~ 85-90 % of country's demand for Lu-177 while part of the domestic demand is catered to in case of I 131 and Mo-99. F-18 [half-life: 110 min] being short lived poses a logistical challenge and limits its distribution range. Thus, F-18 products produced at MCF, Parel and Cyclon-30 are supplied to nearby hospitals only and not sufficient to meet national demand.
Iodine-131 (I-131)	1000-1200 Curie	I-131: No	
Molybdenum-99 (Mo-99) (parent of Tc-99m)	8000-10000 Curie	Mo-99: No	
Fluorine-18 (F-18)	300-400 Curie	F-18: No	

There is no demand-supply mismatch in Ga-68. However, there is a demand-supply mismatch for Mo-99 and approximately 10-15 % gap in demand and supply of Lu 177.

Bhabha Atomic Research Centre, a Research and Development unit under Department of Atomic Energy (DAE) has obtained in principle approval for the PPP-based isotope reactor project and Detailed Project Report (DPR) is under review for administrative and financial sanction of the project. It is expected that production is likely to start around 2035 with 0.5 MCi(million Curie)radio-isotope production capacity.

Tata Memorial Centre (TMC), a Grant-in-Aid institution under DAE has already expanded affordable nuclear medicine infrastructure in Tier-2 and Tier- 3 cities. The names of such Tier-2 cities are New Chandigarh, Visakhapatnam, Bhubaneswar, Guwahati, Varanasi, Muzaffarpur (Bihar) and Tier-3 city is

Sangrur (Punjab).

This information was given by Dr. Jitendra Singh, Union Minister of State (Independent Charge) for Science and Technology, Earth Sciences, MoS PMO, MoS Personnel, Public Grievances & Pensions, Department of Atomic Energy and Department of Space, in a written reply in the Lok Sabha today.

NKR/PSM

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