

PARLIAMENT QUESTION: DOMESTIC SELF-SUFFICIENCY IN CRITICAL MEDICAL RADIOISOTOPE SUPPLY

प्रविष्टि तिथि: 12 AUG 2026 3:03PM by PIB Delhi

Molybdenum-99 (Mo-99), Iodine-131(I-131) and Lutetium-177 (Lu-177) are the most important reactor-produced medical radioisotopes, accounting for nearly 90% of all Nuclear Medicine applications. Owing to their relatively short half-lives, these medical radioisotopes are produced at regular intervals, typically on a weekly or fortnightly basis in the Dhruva reactor, Bhabha Atomic Research Centre (BARC).

The total activity of ^{99}Mo , ^{131}I and ^{177}Lu based radiopharmaceutical products produced and supplied during the past five years is detailed below.

Radioisotope	Production capacity (Ci)	Production Data (Ci)				
		2021-22	2022-23	2023-24	2024-25	2025-26
Lu-177	50 Ci/batch	473	532	684	681	976
^{99}Mo - $^{99\text{m}}\text{Tc}$	50 Ci/week	662	693	268	283	550
I-131	50 Ci/week	749	813	710	623	770

During maintenance shutdown of reactor/radiochemical processing facility or non-availability due to technical reasons, these radioisotopes are procured through imports from overseas producers for production and supply of radiopharmaceuticals to nuclear medicine centres.

The details of the medical radioisotopes imported during such periods, along with the quantities imported, are summarized in the Table below.

Radio-isotope	Imported Quantities and Country of Origin(Curies)				
	2021-22	2022-23	2023-24	2024-25	2025-26

Lu-177	-	-	-	10 Ci (Russia)	136 Ci (Russia)
Mo-99	460 Ci Australia, Russia	430 Ci Australia, Russia	30 Ci Egypt, Russia	230 Ci Egypt, Russia	516 Ci Belgium, Russia
I-131	219 Ci Poland, South Africa	-	-	174 Ci Poland, South Africa	421 Ci Russia, South Africa, Belgium

While Board of Radiation & Isotope Technology (BRIT) a constituent unit under Department of Atomic Energy has been able to supply the confirmed orders to an extent of ~ 90 % in conditions of normal operations, there have been shortfalls due to unforeseen shutdown of reactor/radiochemical processing facilities due to technical reasons and non-availability of imported backup supplies during such contingencies.

The details of supply shortfalls during the past five years are presented below:

Radioisotope	Short supply/Cancellation				
	2021-22	2022-23	2023-24	2024-25	2025-26
Mo-99 (52 batches/annum)	2 batches	1 batch	13 batches	19 batches	Nil
I-131 (52 batches/annum)	1 batch	Nil	4 batches	10 batches	3 batches
Lu-177 (52 batches/annum)	Nil	2 batches	2 batches	7 batches	3. batches

Bhabha Atomic Research Centre (BARC) a Research and Development unit under Department of Atomic Energy (DAE) has obtained administrative and financial sanction to the project “Engineering and Construction of Isotope Production Reactor”. It is expected that production is likely to start around 2035 with 0.5 MCi(million Curie) radio-isotope production capacity.

This information was given by Union Minister of State for Prime Minister’s office and Personnel, Public Grievances and Pensions, Atomic Energy and Space, Dr. Jitendra Singh, in a written reply in the Lok Sabha today.

NKR/AK/NM

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