

Science Council of Japan Urges Stable Supply of Domestic Radioisotopes

A committee of the Science Council of Japan (SCJ) discussing underlying problems for the usage of radiation and radioactivity has drawn up a proposal concerning the creation of an appropriate stable supply system of radioisotopes (RI) in Japan. It seeks the new development of a system for RI manufacture and supply in this country, primarily in the field of medicine, and for the rational promotion of RI usage.

The major task facing RI supply in Japan is overcoming the hurdles to creating a stable supply, given that most unsealed RIs are imported, as well as problems in quality management. It is also impossible to carry out sales of stored RIs, given that the half-life for the nuclei in radioactive medical products is short, especially those used for internal diagnosis.

Molybdenum-99 (Mo99), the main RI used in nuclear medical diagnoses, is produced mainly in Canada. In recent years, the reactor used to manufacture Mo99 there has faced multiple troubles, and no successor reactor is in the works. That situation is impacting medical circles worldwide.

Meanwhile, the reactors used domestically in Japan to produce RIs – JRR-3 and JRR-4 of the Japan Atomic Energy Agency (JAEA) – are primarily used for research on neutron-beam utilization, and are insufficient to support a system for the stable supply of RIs.

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