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## Commission Addresses Key Issues in Nuclear Medicine, Radiology and Radiotherapy

The European Commission has adopted a Communication to the European Parliament and to the Council on medical applications of ionising radiation. It proposes a way forward to resolve the urgent issue of shortage of supply of radioisotopes for nuclear medicine. The Communication also identifies key issues to improve radiation protection of patients and medical staff, to avoid a rise in population exposure associated with the technological advances in x-ray computed tomography imaging (CT) and an increase of accidental or unintended exposures in radiotherapy. This Communication was jointly proposed by Günther Oettinger, Commissioner responsible for Energy, and by John Dalli, Commissioner responsible for Health and Consumer Policy.

- Energy Commissioner Günther Oettinger said: "Nuclear medicine is essential for diagnosis and treatment of serious diseases like cancer, cardiovascular and brain diseases. At the same time, the overall population exposure to ionising radiation due to medical procedures overwhelms any other man-made exposure."
- Commissioner for Health and Consumer Policy John Dalli added that: "The shortage of radio-isotopes needed for medical procedures as well as the need to improve patient and health professionals' protection against accidental or unintended exposures in radiotherapy, are important objectives of public health policy."

All over the world, the number of x-ray examinations is around four billion per year. In Europe, around nine million patients are treated each year with radioisotopes. It is the Commission's responsibility to help secure the availability of this technology to the benefit of human health. Today, the most widely used diagnostic radioisotope, Technetium- 99m, is in short supply because it relies on an unsustainably low number of production reactors. Within the overall nuclear energy policy of the European Commission it is of crucial importance to provide incentives for further research reactors to contribute to its production and in the long-term for new research reactors to be built for this purpose.

The Communication proposes a long-term perspective on the medical application of ionising radiation in the Union to stimulate discussions on the necessary actions, resources and distribution of responsibilities.

## **Actions to Strengthen Regulatory Framework**

The following actions are proposed:

- Strengthen the existing regulatory framework: The current legislation (Directive 97/43/Euratom) will be upgraded to enhance regulatory supervision to ensure that the legal requirements are respected. This will be part of an overall consolidation of radiation protection legislation in 2011.
- Raise awareness and safety culture: The medical profession must receive adequate training and regular updates on good practice, and above all, made sensitive to its responsibility in ensuring both good medical care and adequate radiation protection. Awareness also needs to be raised among patients and among the general population.
- Foster radiation protection and a sustainable supply and use of radioisotopes through research: Actions within the Euratom and EU
  Framework Programmes and in the framework of the Sustainable Nuclear Energy Technology Platform (SNETP) should contribute to the
  improvement of radiation protection and to the development of research infrastructures and competences.
- Financing mechanisms to ensure sustainable supply of radioisotopes: The Commission assesses different financing mechanisms to ensure a sustainable supply of radioisotopes in the interest of public health.
- Integration of policies: Medical applications of ionising radiation call for good integration of different policies, on public health, research, trade and industry as well as radiation protection.
- International cooperation: The World Health Organisation (WHO) is very active in this area and the International Atomic Energy Agency (IAEA) has built up important programmes and information tools. The Commission will support all initiatives for coordinated efforts.

## **Further Reading**

The following documents "The Communication on medical applications of ionising radiation and security of supply of radioisotopes for nuclear medicine", and "Commission staff working paper with annexes to this Communication" are available on the website: http://ec.europa.eu/energy/nuclear/radiation\_protection/r adiation\_protection\_en.htm

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