Public Health Response to Radiation Risks

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To protect human health from ionizing radiation hazards through promoting research and providing recommendations for public health responses to medical radiation and radiation/nuclear accidents.

Medical radiation safety

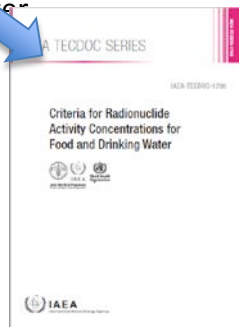
Current issues in protection of medical radiation are being investigated with relevant organizations to update and reform radiation safety regulations in Japan, including shielding calculations for X-ray facilities regarding high-throughput X-ray CTs, newly developed radiopharmaceuticals such as Ra-223, security of radioactive sources, and risk communication issues regarding induced radioactivity caused by linear accelerators and medical compact cyclotrons.

- Health and Labour Sciences Research on medical radiation safety granted by the Ministry of Health, Labour and Welfare
- The committee for nuclear security, NRA

Public health response to radiation/nuclear accidents

There are complicated public health issues during a recovery phase from a nuclear/radiation accident. We are challenging to work with local public health activities by adapting the ethical principles. We also contributed to the TECDOC issue by IAEA that is intended to manage various situations where radionuclides are, or could be, present in food and in drinking w[illegible]

Detection of a radioactive orphan source in a public park in Toshima, Tokyo



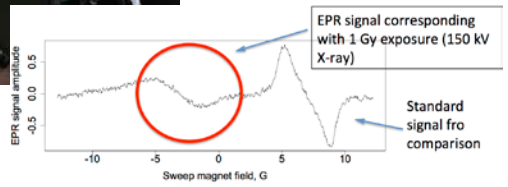
- The Task Force on the Countermeasures against Radioactive Materials, the Food Sanitation Commission of the Pharmaceutical Affairs and Food Sanitation Council (MHWL)(2011-)
- Cooperated research with Nagasaki Univ.

In vivo tooth dosimetry using electron paramagnetic resonance

In vivo EPR tooth dosimetry using L-band has been developed to allow measurements to be made with teeth in the mouth in situ. This approach has several desirable characteristics to screen for significant radiation exposure following a mass-exposure incident.

In vivo EPR tooth dosimetry

Transportation of the equipment



- Industrial Disease Clinical Research on radiation dose estimation for triage in case of an emergency situation granted by the Ministry of Health, Labour and Welfare cooperated with the EPR Center at Geisel School of Medicine, Kagawa Univ., Hokkaido Univ., IPU and QST.