Euratom and ensuring the continued uninterrupted cross-border supply of nuclear materials, including for medical use, post-Brexit.

The British Medical Association (BMA) is a voluntary professional association and independent trade union, representing doctors and medical students from all branches of medicine across the UK and supporting them to deliver the highest standards of patient care.

Key points

- The European Atomic Energy Community (EURATOM) facilitates the movement of radioisotopes around Europe. Radioisotopes play a vital role in diagnosing and treating cancer in the UK. It is therefore essential that the UK has consistent and timely access to radioisotopes, which are used for a variety of medical purposes, post Brexit.

- EURATOM also supports UK research in the nuclear industry through the Horizon 2020 programme. Post Brexit, it is vital that any new immigration system remains flexible enough to recruit academics who are critical to supporting research and radiation safety in the nuclear industry.

- The BMA calls on the government to urgently clarify how the UK will continue to work closely with the EURATOM community post Brexit to ensure consistent, timely access to radioisotopes for medical purposes, and close collaboration on radiation research and safety.

- Despite government assurances that our ability to access medical isotopes produced in Europe will not be affected outside EURATOM, the BMA calls on the government to outline specifically, for the benefit of doctors and patients, how this will be achieved and what process will be put in place.

EURATOM

EURATOM (European Atomic Energy Community) facilitates the movement of isotopes around Europe and provides for funding of research development programmes.

Nuclear isotopes

The UK does not produce radioisotopes domestically and therefore rely on international supplies. For example, Technetium 99, the most common radioisotope used in nuclear diagnostic imaging in UK hospitals, is produced in the Netherlands, France and Belgium, a process which is facilitated by EURATOM. NHS England data has shown that approximately half a million scans which play a vital role in diagnosing and treating cancer in the UK are performed annually using imported radioisotopes. Radioisotopes have a short half-life and cannot be stockpiled. As such, having a supply close to the point of use is critical for medical investigation and treatment, and continuous and timely access is vital for patient safety. Five nuclear reactors in Europe provide around 60% of the world’s production of Mo-99, which is used to produce Technetium 99, the most widely used diagnostic isotope.

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2 Rt Hon Damien Green MP, House of Commons, PMQs, Wednesday 12 July 2017
At Prime Minister’s Questions on July 12, the government stated that EURATOM places no restrictions on the export of medical isotopes, this was reiterated by the Department for Exiting the European Union in response to a written parliamentary question on July 17\(^4\). The Royal College of Radiologists\(^5\) and the British Nuclear Medicine Society\(^6\) have both said that they have serious concerns about continued access to radioactive isotopes should the UK leave the EURATOM treaty. Whilst these isotopes can be purchased outside EURATOM, leaving the treaty could reduce the reliability and timeliness which the UK can obtain these vital supplies, and likely increase the cost. The BMA believes that the government must set out, as a matter of urgency, by which process the UK will be able to continue to access essential isotopes.

**Research**

EURATOM also underpins UK research and radiation safety in the nuclear industry through the Horizon 2020 programme. As of February 2016, 25 UK organisations had participated in EURATOM projects under Horizon 2020 and received funding of 32 million euros\(^7\). The programme currently provides a key network that supports research and training in areas such as nuclear safety, clinical radiation protection, the safe disposal of radioactive waste, and free movement of nuclear sector specialists.

The existing arrangements regarding international cooperation and the movement of academics are critical to supporting research and radiation safety and is of benefit to patients. Leaving EURATOM, and subsequently the Horizon 2020 programme, puts this at risk.

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\(^4\) Written parliamentary question, Answered by the Department for Exiting the European Union on 17 July 2017

\(^5\) Royal College of Radiologists statement, Monday 10 July 2017

\(^6\) British Nuclear Medicine Society statement

\(^7\) House of Commons Library (2017) Euratom.