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Press release

1ST LUTETIUM-177 INJECTIONS WITH THE THERANOJET[®]ARA SHIELDED INJECTION SYSTEM AT THE BEAUJON AP-HP HOSPITAL

THERANOJET[®]ARA / BY LEMER PAX

On August 3, the Beaujon AP-HP hospital Nuclear Medicine department (Assistance Publique – Hôpitaux de Paris), located in Clichy, in Paris (France), successfully injected its first treatments with Lutathera using the new Theranojet[®]ARA shielded injection system.

The result of a successful collaboration between the Beaujon AP-HP hospital and Lemer Pax, the Theranojet[®]ARA is an innovative patented device intended for the radioprotected intravenous administration of radiopharmaceutical drugs for Targeted Radiotherapy (TRT), labelled in particular with ¹⁷⁷Lu. Since then, 7 new patients have already been treated with this new equipment in the department.

The nuclear medicine department at Hôpital Beaujon AP-HP has 2 gamma cameras and a PET scanner, and carries out examinations (scintigraphies, TEPSCAN) using radiopharmaceutical injections. The department also has a significant therapy activity, with selective internal radiotherapy using Yttrium-90 microspheres for the treatment of patients with liver tumors, as well as Targeted Radiotherapy (TRT) for patients with metastatic neuroendocrine tumors using ¹⁷⁷Lu-DOTATATE and metastatic prostate cancers using ¹⁷⁷Lu-PSMA-617. Approximately 80 selective internal radiotherapies are performed annually, as well as 200 cycles of Targeted Radiotherapy (TRT) with ¹⁷⁷Lu-DOTATATE and ¹⁷⁷Lu-PSMA-617.

The Beaujon AP-HP Hospital Nuclear Medicine Department is a real reference centre for Targeted Radiotherapy (TRT) treatments. It has its own injection system for both ¹⁷⁷Lu-DOTATATE and ¹⁷⁷Lu-PSMA-617. However, this solution has proven to be effective, by making it possible to meet the constraints of this type of treatment (slow administration). However, it requires optimization in terms of radiation protection as well as the facilitation and securing of the injection system for the members of the healthcare team.

That's why, faced with this observation, the teams from Hôpital Beaujon AP-HP and Lemer Pax, the world leader in innovation in the field of radiation protection, came together to propose a new ultra-secure solution adapted to support these developments and to propose to health professionals the improvement of their methods of administration for these new radiopharmaceutical therapeutic drugs.

Objective: to offer the market an ergonomic and ultra-safe injection system dedicated to therapy.

Presented as a world premiere at the EANM (European Association of Nuclear Medicine) congress, the unmissable annual meeting of Nuclear Medicine in Europe taking place in Vienna, from September 9 to 13, the new version of the Theranojet®ARA injection system, with sleeker lines and enhanced radiation protection, better meets the needs expressed by personnel in the nuclear medicine sector around the world.



Shielded injection system for theranostic products



*Beaujon AP-HP (Assistance Publique – Hôpitaux de Paris, France) Hospital Nuclear Medicine Department team
©hôpital Beaujon AP-HP*

*« For a department like ours, which carries out a lot of Targeted Radiotherapy (TRT),
Theranojet®ARA is a valuable ally in limiting our exposure to ionizing radiation and reducing the
risk of contamination of equipment and premises. »*

What makes the difference with the new version of the Theranojet^{®ARA} injection system:

1. Securing the treatment, from the packaging of the vial to the injection of the patient

When preparing the vial, the presence of a shielded component facilitates the connection of the "Spike" type vial adapter (consumable) to the vial in the preparation enclosure, guarantees better radiation protection of personnel against ionizing radiation, while limiting the risk of contamination. The use of this adapter, both during preparation and disposal, avoids the risk of needlestick injury, unlike the use of needles which requires more precautions.

In addition, the integration of several secure connectors inside the consumables allows the entire solution to be kept inside the kits, even when disconnected.

Finally, equipped with a pump incorporating pressure and air bubble detectors, the Theranojet^{®ARA} guarantees complete patient safety, preventing any risk of extravasation and injection of air bubbles.

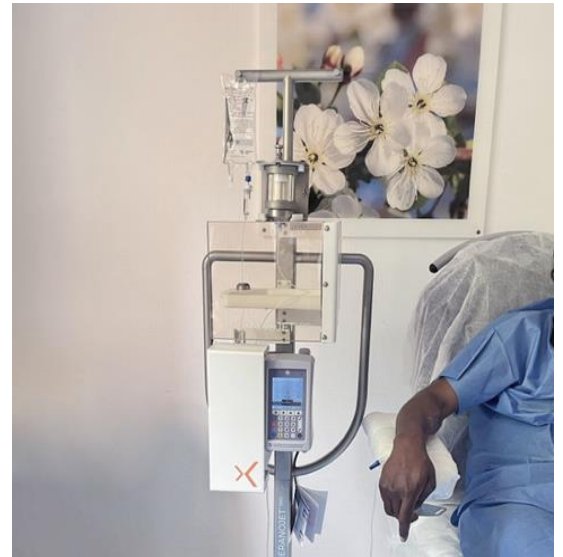
2. Personnel radiation protection

The use of Theranojet^{®ARA} during these different treatments has shown a drastic reduction in the exposure of personnel to ionizing radiation, at each stage of preparation, administration and disarming.

The device incorporates several shielded components, which are effective from the preparation of the vial, such as the clamp to protect the extremities of the healthcare staff when installing the filter in the vial.

The protection of the upper portion, transparent thanks to the use of lead glass, guarantees the safety of the personnel throughout the injection, guaranteeing visibility of the tubing and the retention area.

The protection of the lower portion, encompassing half of the pump, is made of lead and also guarantees the protection of personnel from the start to the end of administration.



7 new patients have already been treated with this new equipment in the department. ©hôpital Beaujon AP-HP

The integration of all these solutions has made it possible to divide staff exposure to ionizing radiation by 10 made at a distance of about 60 cm from the device during the entire treatment, compared to the method used up until now by the Beaujon AP-HP hospital.

3. Ease of use

With reduced weight and thanks to its 4 swivel castors, the Theranojet^{®ARA} is easy to handle and maneuver. Its two side handles help to move the device effortlessly into the different injection boxes. Thanks to its simplicity, its quick handling and its intuitive configuration, the healthcare staff was completely operational from its first uses and injections. Its composition, including, among other things, removable retention tanks, allows disinfection and decontamination, if necessary, simply and quickly, without altering the components of the shielded injection system.

LEMER PAX

Innovative and collaborative radiation protection: the heart of our business

From design manufacturers-, we have become a supplier of global solutions capable of bringing together all the skills across the entire value chain of a Radiopharmacy and Nuclear Medicine department in terms of radiation protection. From the production of radiopharmaceuticals, shipping, control, fractionation and administration to your patients to the management of your radioactive waste and contaminations, Lemer Pax puts all of its collective knowledge into the entire life cycle of a Nuclear Medicine department to protect what is essential: Life!

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HOPITAL BEAUJON AP-HP

Hôpital BEAUJON AP-HP is a hospital of the GHU AP-HP. Nord - Université Paris Cité. Located in Clichy (92) on the outskirts of Paris, Hôpital Beaujon is a short-stay adult hospital that combines excellence and local care, with an emergency department and maternity ward. Medical and surgical specialties at Hôpital Beaujon focus on two main areas of excellence: diseases of the digestive system (transplants, major operations on the small intestine, colon, liver and pancreas, cancers, infections of the hepatobiliary system, etc.) and diseases of the head, neck and spine (neurosurgery, orthopedics, maxillofacial surgery, etc.).
