PATENTED PRODUCT

After 3 years of research and development, LEMER PAX in collaboration with its scientific committee introduced the POSIJET to meet the new regulation constrains in radiation protection.

The POSIJET is an innovative process of calibration and injection of FDG but also of other radioisotopes such as Gallium-68 or rubidium-82 allowing a reduction of the doses received by the exposed manipulators while carrying out a traceability of the patients, manipulators, and kits.

Testimonial members of scientific comitee LEMER PAX

The rapid development of the Positron Emission Tomography, currently with the F-18-FDG but shortly with other radioisotopes such as Gallium-68 and rubidium-82, increases the exposure of the medical and technical staff members due to the injected activities and the annihilation photon energy. Therefore it is important to reduce this exposure by optimizing all procedures of radiation protection. The POSIJET will significantly contribute to this optimized radiation protection which should secure the staff members in charge of PET examinations.

Prof. Jean François CHATAL
Chairman of Nuclear Medicine Tomorrow Previous head of Nuclear Medicine Department University Hospital and cancer Centre Scientific adviser for ARRONAX cyclotron Nantes, France.

I think the project is of high interest due the increasing use of F-18 FDG. The strength of POSIJET would be a significant reduction in radiation burden/exposure to staff members… Every single detail of the administration/injection process has been taken into account, the whole injection procedure is safer (control of radioactivity injected).

Prof. Dr. Richard P. Baum
Chairman and Director, Dept. of Nuclear Medicine / Center for PET/CT
Zentralklinik Bad Berka Germany

Dear Colleague,
It is clear from the evaluations made on the POSIJET that this device has the following advantages:

- *Asset No. 1: it allows an optimum radiation protection of workers on all workstations where radiopharmaceuticals emitting positron or photon with an energy superior to 0,5 MeV are handled.*
- *Asset No. 2: it allows using multi-dose vials without risk of microbiological contamination of solutions and / or radioactive surfaces.*
- *Asset No. 3: its integrated computing software allows full traceability of the products and patients injected, with simple data retrieval.*

Alain FAIVRE – CHAUVET
Chair of French society of radio pharmacy (SOPRA)
National representative of the radio pharmacists at the committee of radio pharmacy of the EANM.

I have known this group and this company for at least 3 years and it's a very great pleasure working with them. I think POSIJET is a great product and I think it has a great future and we will be working together for its promotion.

Dr Matthew THAKUR
Director of Radiopharmaceutical Research and Professor of Radiology and Radiation Oncology at Jefferson Medical College of Thomas Jefferson University and past President of the Society of Nuclear Medicin

www.lemerpax.com

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NUCLEAR MEDICINE

POSIJET®

Integrated **FDG** dispensing and infusion system.

- Dose rate reduction > 98%
- Take up
- Measure
- Inject

safely and securely

Eliminates requirement for operator to handle radio active dose

Accurate dose calibration

Sterile injection process, with easily disposable tubing kit

Large interactive touch screen

Integrated record keeping, with remote download capability

Internal rechargeable power supply

PATENTED PRODUCT

CE 0398

FDA 510 (K) Pending

LEMER PAX INNOVATIVE

www.lemerpax.com

POSIJET®

The **POSIJET®** calibrates by activity measurement, dilutes, and then injects a patient with a FDG solution from the shielded container as shipped from the production site, while respecting operator radiation protection legislation, as well as the pharmaceutical aspect of the injection.

PATENTED PRODUCT

DESCRIPTION

The equipment is contained in a mobile shielded unit composed of :

1 • An ACAD dose calibrator that measures activity in real time.

2 • An automatic or manual remote-controlled injection system.

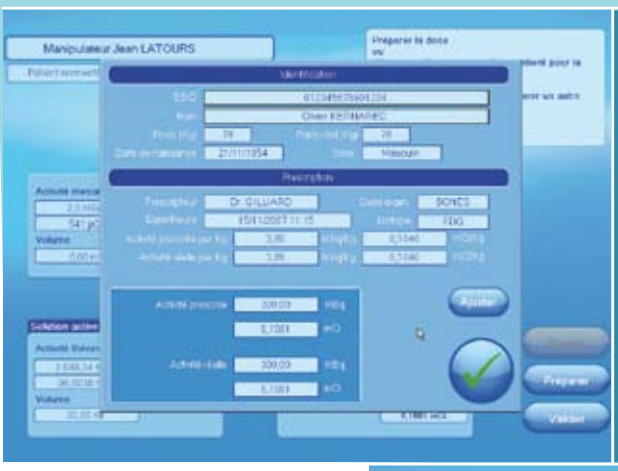
3 • An interactive touch screen control panel.

4 • A sterile injection kit (disposable) composed of tubes and connections between the FDG source, the measurement system and the patient.

5 • A sterile injection kit (disposable) composed of tubes and connections between the FDG source, the measurement system and the patient.

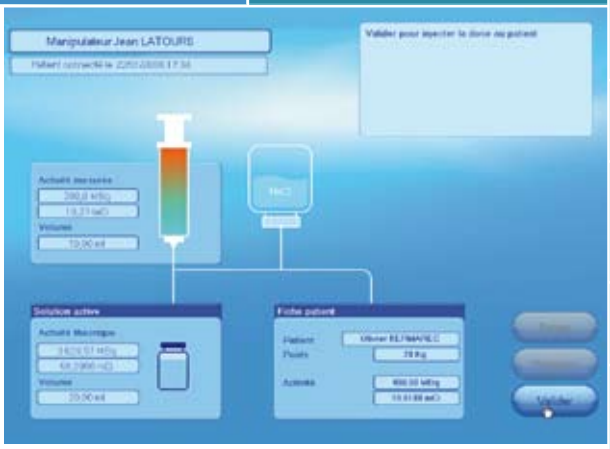
CONTROLS

The touch screen control panel is used to perform the calibration (measure activity) and view the FDG preparation (dilution) and injection phases in real time.

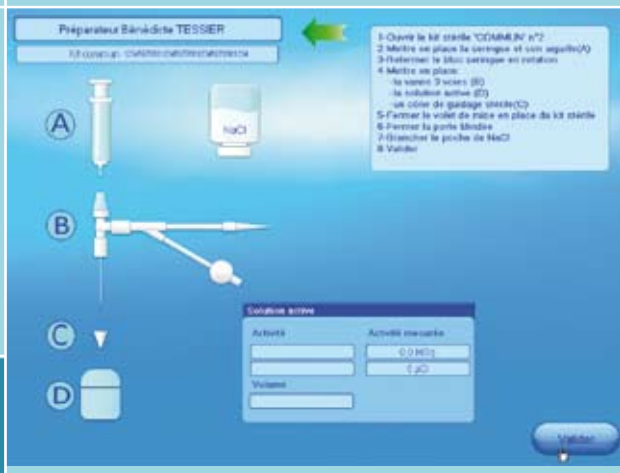


Screen «patient card»

The user-friendly touch screen with its clear, easy-to-use interface provides instant access to the software features.



Screen «injection»



Screen «preparation»

SHIELDING

The entire mobile unit is shielded to ensure operator protection during the preparation phase. At 5 cm from the external walls, the dose rate is less than 25µSv/h.

EASY TO USE

The mobile unit is on wheels for easy transfer from the hot lab to the injection site. Power provided by on-board rechargeable batteries, with remaining battery charge shown.

TECHNICAL SPECIFICATIONS

- Dimensions : H 1600 x 600 x L 950 mm
- Weight : 380kg
- Battery life : 8 hours
- Power supply : 110-220V, 50-60Hz, 16A
- Dose rate < 25µSv/h to 5 cm
- Detectors activity meter CE 0398 certified
- Energie range : 511 KeV
- measurement range : 15kBq to +300GBq of FDG
- Accuracy : > 95%
- Reponse time : 2 to 5 seconds
- Choice of unit : Ci or Bq
- Detailed management of injected doses with connection into the various software of the service

Specifications might change without prior notice.

LEMER PAX INNOVATIVE